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The early economic development of
Alberta, previous to 1905. 1923.

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THE EARLY ECONOMIC DEVELOPMENT
OF ALBERTA.
(PREVIOUS TO 1905).

Dorothy Diller.



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CONTENTS.

I. Physical Features and Resources.

Location.

Area.

Surface Features.

Southern Section.

Central Section.

Northern Section.

Resources.

Climate.

Soil.

Areas of Greatest Productivity.

Stock-raising Possibilities.

Coal.

Other Minerals.

II. The Fur Trade.

The French Period, 1750-1769.

Free Trade and Rivalry, 1769-1821.

Monopoly of the Hudson's Bay Company, 1821-1870.

The Purchase of the Northwest by the Dominion.

Effects of the Fur Trading Period on Economic Progress.

III. Early Testing of Agricultural Possibilities. p. 49

IV. Preparation for Settlement, 1870-1881. p. 57

Conditions in the Northwest at the Time of the Transfer to the Dominion.

Tasks Awaiting the Government.

The Establishment of Law and Order.

Mounted Police.

Growth of Self-Government.

Indian Treaties.

Government Surveys.

Land Regulations.

Communication Effected with the Outside World.

Attainment of a Transcontinental Railway Policy.

Progress and Settlement during the Decade.

V. Ranching. p. 85

Cattle Ranching.

Small Beginnings.

Government Leasing System and the Beginning of
Ranching on a Large Scale.

Early Difficulties.

Growth of Markets.

Decline of Cattle Ranching.

Horse Ranching.

Sheep Ranching.

VI. Railway Development, 1885-1905.

Main Line of the Canadian Pacific Railway.

Branch Lines.

Effect of Railways on the Economic Development.

Effect on River Transportation.

VII. Agriculture, 1880-1905.

Beginning of Mixed Farming in Calgary District
and Central Alberta, 1881-1905.

Growth of Mixed Farming in Central Alberta, 1891-1905

Beginning of Irrigation and Mixed Farming in
Southern and Southeastern Alberta.

Wheat growing in the South.

VIII. Coal Mining.

Discoveries of Coal Fields.

Growth of the Industry.

IX. Summary.

PHYSICAL FEATURES AND RESOURCES.

Until 1870 the territory which constitutes the present Province of Alberta was part of that vast area comprising Rupert's Land and the Indian Territories, which was under the administration of the Hudson's Bay Company. In 1870 it passed over with the rest of these lands into Dominion control and became part of the North West Territories of Canada. The official history of Alberta began in 1882 when the four provisional districts of Athabasca, Alberta, Assiniboia and Saskatchewan were organized. In 1905 the district of Alberta, the western half of Athabasca, and a strip of Assiniboia and Saskatchewan were joined to form the province of Alberta. This comprises the territory bounded on the east by the hundred and tenth meridian on the south by the international boundary at the forty-ninth parallel, on the southwest by the Rocky mountains, and on the west by the hundred and twentieth meridian, and on the north by the sixtieth parallel. The province is 750 miles in length, 400 miles wide at its widest part and 175 miles at its narrowest. This embraces an area of 255,285 square miles, of which 252,225 square miles are land and

2,360 miles are under water. The whole province is a vast plateau sloping eastward and northward from the line of the Rockies. Except for the Rocky mountains and the foothills east of them it consists mainly of rolling prairies, broken by numerous rivers which have their sources in the mountains. It is divided naturally into three sections corresponding to three different drainage systems.

Southern Alberta extends north from the boundary for about two hundred and forty miles to the Red Deer river. This comprises an area of about sixty thousand square miles. A small portion of the south of this section is drained by the Milk river, a part of the Mississippi system, which flows through Alberta for about sixty miles near the border. In the main, however, southern Alberta lies in the basin of the South Saskatchewan and its tributaries of which the largest are the Old Man's, the Bow and the Red Deer Rivers. This was formerly the great ranching country. It consists of open prairie in the east with a mountainous and foothill region, about sixty miles in width along the western side. There is considerable timber in the foothills, but east of them is found the short grass characteristic of the prairie. The rivers run at a depth of from two to three hundred feet below the

prairie. Numerous coulees extend from the river valleys. The lakes in this section are small and shallow.

Central Alberta, about sixty five thousand square miles in area, extends from the Red Deer River to the height of land running diagonally across the province between the Peace and Athabasca rivers, about sixty miles north of Edmonton. This section is about a thousand feet lower in altitude than southern Alberta. It forms a plateau, sloping eastward, drained by the North Saskatchewan and its chief tributary, the Battle river. The main surface difference between this part of the province in its natural state and the southern part is its higher and heavier vegetation. The foothills are well wooded, while nearly the whole of the rest of this region consists of what is known as "park country", that is, of alternate stretches of wooded and prairie areas. Willow scrub and briars are common throughout. The timber consists of soft wood varieties, chiefly grey willow and poplar, with areas of spruce along the rivers. While not valuable for export this timber has proved useful to settlers for fuel and building purposes. There are a number of small lakes in this

region.

Northern Alberta comprises an area of about a hundred and thirty thousand square miles. It is drained by the Peace and Athabasca rivers and their tributaries, all forming part of the great Mackenzie system. This section is still lower in altitude than central Alberta. It varies from about two thousand feet in the southwest to one thousand six hundred feet in the northeast. It resembles Central Alberta in that it consists of alternate open and treed areas. A great portion of it, however, is heavily timbered. The river valleys, especially, are thickly forested with spruce and poplar. This section is more broken by hills than the other prairie areas of the province. It has a number of important lakes including Lake Athabasca and Lesser Slave Lake which form part of the Mackenzie river system.

Many of the lakes of northern and central Alberta contain abundant supplies of fish, especially white fish and pike. In the days of the fur trade the fish supply was an important consideration affecting the location of posts.

Numerous fur bearing animals are found in northern Alberta and the territory to the north of it. The most important kinds are beaver, muskrat, fox, otter, marten, fisher and lynx.

Other kinds more widely distributed throughout the province, particularly in the foothill regions, are timber wolves, prairie wolf, wolverine, coyote, black, brown and grizzly bear, weasel (ermine) and badger. In the early days, before the coming of the white man, great herds of buffalo roamed the southern plains.

With the exception of its wealth of coal, the natural resources of Alberta are of an agricultural nature. A factor of primary importance, therefore, in determining the value of these resources is climate. The climate of the province offer several rather serious limitations to agricultural development. Its general features are those of an interior region in a northern latitude, far removed from the ameliorating influence of large bodies of water. This means long winters, and great extremes of heat and cold between summer and winter. Modifying influences occur as a result of nearness to the Rocky mountains and variations in altitude. Climatic zones within the province do not on the whole correspond with the different drainage systems.

The three climatic factors of the greatest importance in connection with agricultural possibilities

are precipitation, temperature and winds. Precipitation is not heavy in any part of the province. It varies from eight to nine inches in southern and southeastern parts to from twenty to twenty-five inches in other parts (1) There are apparently at least three zones of precipitation although sufficient data has not been collected to accurately define them. The dry zone is southeastern Alberta in the neighborhood of Medicine Hat. The semi-dry zone would appear to extend in the form of a semi-circular belt around the dry zone, including the remainder of southern Alberta, with the exception of the foothills. The humid zone includes the foothills, central, and probably northern Alberta. (2) The following table shows the average annual precipitation over a period of years, for representative points:

Average Annual Precipitation
(in inches)

(1)

G. H. Cutler. "The Climate of Alberta in Relation to Crop Production". It is estimated that one acre-inch of water will produce about $2\frac{1}{2}$ bushels of wheat.

(2)

Very little data is available on precipitation in northern Alberta. What data there are, however, indicate that it would be included in the humid zone. Annual Weather Reports, Department of Agriculture.

Dry Area.

Medicine Hat.....	12.79	(3)
Macleod.....	13.63	(4)

Semi-dry Area.

Lethbridge.....	15.13	(5)
Calgary,.....	16.39	(3)

Humid Area

Edmonton.....	17.67	(3)
Pincher Creek.....	18.85	(5)

The question of the seasonal distribution of precipitation is as important as that of the annual amount. The part that falls during the growing season is what counts most in crop production. The seasonal distribution of rainfall in Alberta is very favorable. From data collected for representative points in the province during a long period of time it is estimated that the average proportion of the annual precipitation which falls during the four growing months, May, June, July and August, is sixty-three per cent for the semi-dry; and sixty-four percent for the humid(6). It is this fortunate seasonal distribution of the rather

(3) 1885-1914 Meterological Service of Can.192lpp115-25

(4) 1895-1914, Ibid.

(5) 1906-1913 "Canda and Its Provinces"XXp585

(6) G.H.Cutler:Tables for average monthly pre. at Edmonton. M.Hat,1884-1919. Lethbridge 1902-19.

scanty rainfall which makes crop production possible in southern Alberta. It means, also, dry autumns and favorable conditions for harvesting, throughout the whole province.

The type of rainfall is another important consideration. Heavy downpours often clay or puddle the surface soil, and are largely lost as run-off. The best type of rain is one which falls slowly enough to be carried into the soil to a depth where it will not be exposed to rapid evaporation. From this standpoint, Alberta rainfall is of a very favorable type, although less so on the open plains than in the park country.

Part of the total annual precipitation falls in the form of snow. (1) The amount and duration of the snowfall is a factor of importance because of the protection which a covering of snow furnishes to winter crops. In the northern and central parts of the province snow remains on the ground during a large part of the winter; in the southern and southeastern parts it is the exception for it to remain for long periods.

A small amount of precipitation falls in the

(1) The areas of lightest snowfall coincide with those of least rainfall. The annual amount ranges from 30 in. in the southeast to 60 in. in the north (G. H. Cutler)

form of hail. Hail storms during the months of July and August often cause considerable damage to crops. Sufficient data has not been collected to show whether they are particularly prevalent in certain parts (1)

Wide variations from the average amount and seasonal distribution of precipitation frequently occur and often cause crop failures. Several instances may be given. The average precipitation at Calgary is about 17 inches. In 1892 it was only 7.9 inches, while in another year it was as high as 34.1 inches. The average for Macleod is about 15.5 inches; in 1904 the amount was 5.34 and in 1909 23.9 inches (2). It would appear that departures from the average are most frequent in the southern and southeastern parts of the province.

The question of temperature is equally as important as that of precipitation. The two main considerations bearing on agricultural pursuits are length of the growing season, and total amount of heat available during that season. The length of the growing season is measured by the number of days between late spring and early fall frosts. A short growing season is the most serious limitation to agriculture in northern and central Alberta. The following table.

(1) G. H. Cutler.

(2) G. H. Cutler.

shows the average number of days in the frost free period for representative points in the province, based on observations covering a period of forty-three years (1).

Average Number of Days between Late Spring and Early
Fall Frosts.

Southern Alberta.

Medicine Hat.....	122.
Lethbridge.....	102
Macleod.....	102
Calgary.....	87

Central Alberta.

Edmonton.....	94
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Northern Alberta

Vermilion.....	59
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The length of the growing period is greatest in southeastern Alberta. It decreases rapidly in a northerly and north-westerly direction.

However, the disadvantage of a short growing season in the north is counterbalanced, to some extent, by lower altitude and longer days of sunshine in the summer. These conditions increase the total heat available during the summer. A table of the mean temperature for the three summer months at different points in the province will serve as an index of the

(1) Ibid.

the comparative amounts of heat available during the growing period at these points.

Mean Summer Temperature.

Southern Alberta.

Medicine Hat.....	65.6 ⁽¹⁾
Lethbridge.....	62.8 ⁽²⁾
Macleod.....	61.4 ⁽²⁾
Calgary.....	58.4 ⁽¹⁾

Central Alberta.

Edmonton.....	59.2 ⁽¹⁾
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Northern Alberta.

Athabasca Landing.....	55.4 ⁽³⁾
Fort Chipewyan.....	58.6 ⁽³⁾
Fort Dunvegan.....	57.9 ⁽³⁾

As this table indicates summer isotherms in Alberta run almost north and south(4) R. L. Stupart, director of the Dominion Meteorological service, stated in 1907: " A mean summer temperature of 57.5 degrees provided it remains for two months, is safe for plant growth. The summer isothermal of 57.5 degrees.

(1) 1885-1914 Meteorological Service of Canada, 1921 . pp.115-125.

(2) 1895-1914. Ibid.

(3) 1909 only. E. A. Preble: "North American Fauna" p20.

(4). The first person to record this fact was John Macoun, in his "Manitoba and the Great Northwest", published in 1882.

leaves almost the whole of Alberta south of it. " (1)

While ~~in~~ the summer is of a fairly uniform character throughout the province, differences in latitude are reflected in lower temperatures in the north before the end of August.

The following is a table of mean winter temperatures, from December to March. (2)

Calgary.....	17°
Edmonton.....	14°
Fort Dunvegan.....	1°
Fort Chipewyan.....	5° (2)

In the case of temperature as of precipitation, occasional seasons vary widely from the average. Thus in 1907 and 1911, early fall frosts occurred throughout the province; in 1916 a June frost froze all grain crops; in 1917 a July frost destroyed all wheat that was in the blossoming stage. (3)

The third important climatic factor is wind. Winds of high velocity shatter ripened grain, and cause soil drifting and excessive evaporation. Available information indicates a low wind velocity in the wooded areas of the province, and a rather high velocity in the open plain section of the southeast, where soil drifting is a serious difficulty. Hurricanes are

(1) Canada and Its Provinces, XX, p.586

(2) G.H.Cutler

(3) "

practically unknown in the province.

The chinook winds are a characteristic feature of the Alberta climate. They are warm, dry winds from the west. They blow most frequently in southern Alberta, which is known as the "chinook belt", but they also occur in the Peace River district. Winter chinooks often cause a rise in temperature of as much as sixty degrees in a few hours. They produce conditions favorable to stock-raising, as they keep the grass exposed for winter pasturage. Summer chinooks, however, are unfavorable to crop production because they cause excessive evaporation of plant moisture.

Another notable feature of the Alberta climate is its dry clear atmosphere. The driest atmosphere is in the area of least precipitation, highest temperature and highest evaporation, namely southern Alberta. A dry atmosphere leads to early maturity in plant growth. In the case of Alberta, it is one cause of the high quality of wheat grown, and of the relatively small amount of infection of rust and other fungus diseases.

The statement is sometimes made that the climate of Alberta is gradually changing. It is claimed that the bringing of large areas of land under cultivation lessens the danger from unseasonable frosts, or again

that it tends to increase precipitation.

Available records of weather conditions in the province however, do not indicate that any appreciable change has occurred since the collection of data began (1) In this connection it is interesting to note the opinion of J. Warren Smith of the United States Weather Bureau, to the effect that the bringing of land under cultivation does not tend to increase precipitation(2) He bases his statement on the results of experiments conducted over a period of fifty years in semi-arid portions of the Western States.

Alberta's most valuable resource is its fertile soil. The extent of arable land is of primary interest. It is estimated that from the total land area of 161,877,000 acres, sixty odd million acres should be deducted to cover the rough land of the mountain slopes and foothills, and other areas unsuitable for agriculture. This leaves a hundred million acres of arable land(3). In general, the surface soil of the arable land is exceedingly rich in organic matter and in the minerals necessary for plant growth. Underneath the surface, the whole province is covered with a bed of friable or sandy clay.

(1) G.H.Cutler: Weather reports, Department of Agri.

(2) Monthly Weather Review U.S. Weather Bureau Dec.1919

(3) Statesman's Year Book, 1922.

No extensive scientific examination of the composition of the soil in different sections of the province has yet been carried out but its general nature, except in certain northern parts, is known from practical experience.(1)

The soil regions of the province correspond fairly closely with the climatic zones. There are four main soil types(2).

The prairie type extends over southern Alberta, with the exception of the foothill district. It is a sandy loam, rather light in color and rich in minerals, especially nitrogen. Owing to scanty rainfall, the characteristic natural growth of this region is short grass. The soil, therefore, contains but little humus.

The foothill soil type occurs along the southwestern boundary region. It is a deep black loam, the blackest in the province, due to its large humus content.

The central soil type is a dark brown loam, containing more humus and less nitrogen than the prairie soil, but less humus than the foothill type. This soil extends over Central Alberta and into some parts of the north. It is found in the Grande Prairie district, and along the Peace river valley. Intermixed

(1) Under the direction of the Prov. Dept. Agri. work was begun in 1921 on Soil Survey of the Prov. Only a small area in the south has so far been covered.
2) H.A. Craig.

with this fertile soil in the north, however, are areas of what may be called the northern soil type. They are regions over which the surface soil has been burnt off by prairie or forest fires, leaving only a thin covering of surface soil, from one half to three inches thick in low places, and exposing the sub-soil on knolls and ridges.

In addition to these four main kinds of soil, small pockets of sand and smaller patches of gumbo are scattered throughout the province. Such areas vary in extent from a section to several townships.

The relative productivity of different parts of the province is determined by a combination of the factors of soil and climate.⁽¹⁾ The most productive area has been found to be in the southern foothill region, where there is both sufficient rainfall and a fertile soil. Central Alberta and the Grande Prairie district of the north rank second in productivity. The least productive area, owing to insufficient rainfall, is southeastern Alberta. Productivity gradually increases with an advance from the dry to the semi-dry area. The natural fertility of the prairie soil becomes evident upon the occurrence of occasional wet season in the south. At such times the wheat yield per acre is much

(1) Professor F. A. Wyatt, Department of Soils.

higher in that part of the province than in other parts (1). Also, the combination of scanty rainfall with a soil rich in minerals produces a hard wheat of high quality.

As a stock-raising country, Alberta has great natural advantages, early demonstrated by the herds of buffalo which roamed the plains and wintered in the foothills. One favorable feature is the abundance and variety of natural vegetation. At least ninety-six different varieties of grass have been identified, and of these, forty-six make good hay (2). The wild pea and vetch which thrive in many places make excellent pasture. Cultivated grasses and fodder crops, such as alfalfa, do well in the irrigated districts of southern Alberta. The foothills and the western part of the prairies are particularly well adapted for ranching. The short prairie grass is very nutritious, and cures on the stalk in the fall, providing winter pasturage. Numerous coulees furnish natural places of shelter, while mountain streams and springs furnish a sufficient water supply.

Aside from its agricultural capabilities, the most important resource of the province is its wealth

(1) Crop Statistics 1911-1921. Dept. Agri. 1921, p. 74

(2) Harcourt: Canada and Its Provinces "XX, p. 589

of coal (1). Nearly the whole southern half is underlain by one or more coal formations. It is estimated that Alberta contains about fifteen percent of the coal reserves of the world, or about eighty-seven percent of the reserves of Canada (2). Dowling in the "Coal Resources of the World" estimates that the province contains an actual reserve of over 386,360 million tons and a probable reserve of about 673,550 million tons, making a total reserve of about 1,059,910 million tons of coal.

A wide variety of grades are found in the different coal basins of the province. The quality varies from a lignite of medium quality, underlying the prairies, to an anthracite at the front ranges of the Rockies. There are, however, no large deposits of anthracite coal. The quality of coal in the different districts depends on the two factors of age and pressure. As to the factor of age, there are three coal bearing horizons, each belonging to a different geological age and separated from one another by formations from 700

(1) J. A. Allan: "Mineral Resources of Alberta. Summarizes reports of Dawson, McConnell, Tyrrell and Dowling for the Geol. Survey First Annual Report pp46-8. Second pp,37-40
(2) Second Report p.40

to 3000 feet in thickness. The three horizons in order from the oldest to the youngest are:

- (1) Kootenay formation (lower cretaceous).
- (2) Belly River formation (middle part of upper cretaceous)
- (3) Edmonton formation (uppermost cretaceous)

The coals from the lower formations, on account of their age, and the greater weight to which they are subjected, are of a harder and better quality than the others, and more suitable for steam and coking purposes.

The effect of pressure, the other factor determining quality is seen by the fact that the grade of coal in a single horizon improves towards the mountains, due to the fact that there the coal seams have been more intensely compressed by the stresses from mountain building forces. This explains the general improvement in quality noticeable in passing from east to west.

The Kootenay coal measures are exposed principally in the front ranges of the mountains or in the foothills from the Boundary as far north as Yellowhead Pass. This region includes a number of important coal basins in which the grade varies from bituminous to anthracite.



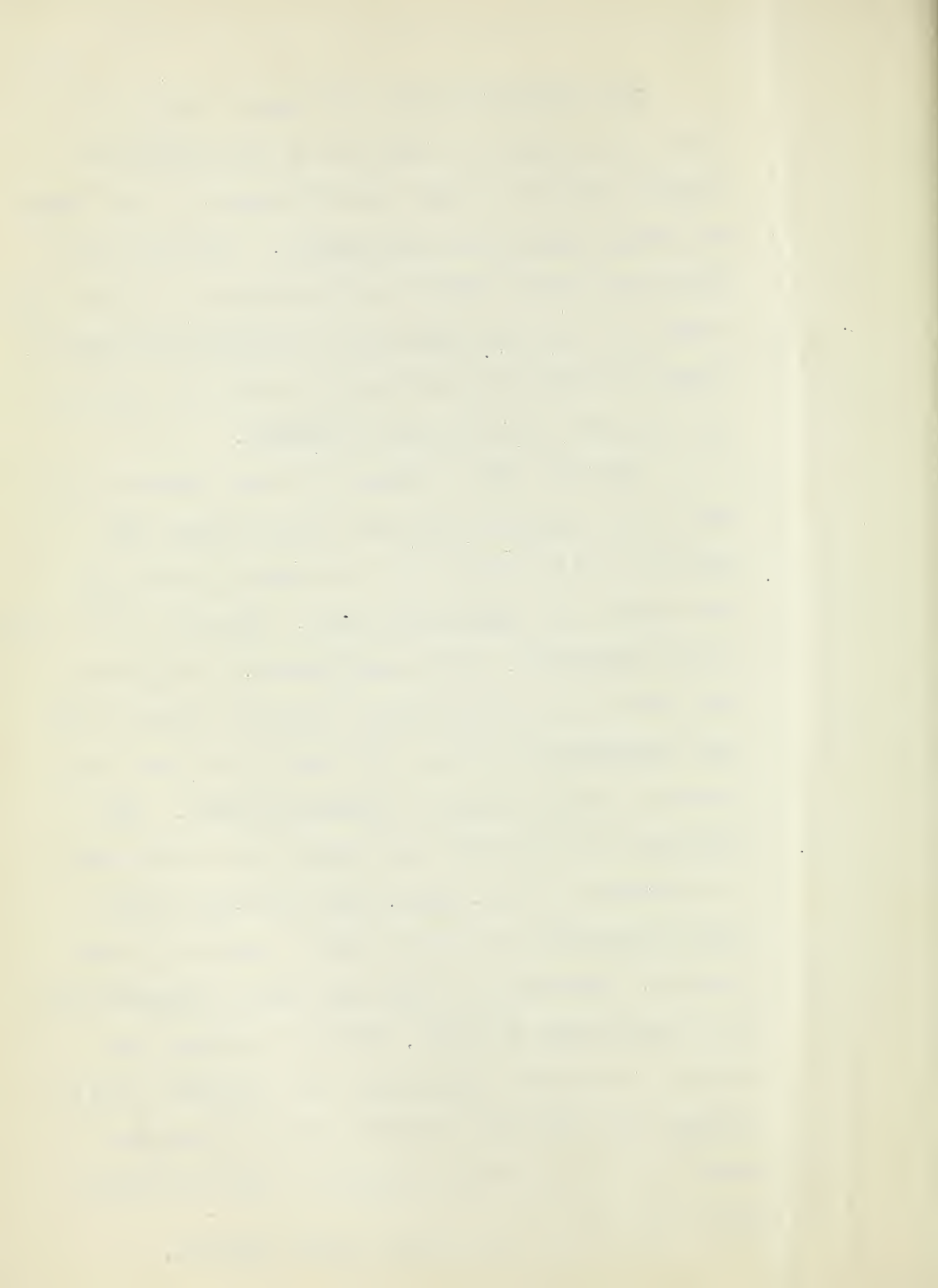
The chief outcrops of the Belly River formation occur in the Lethbridge basin, and along the foothills as far as Peace River. Dowling estimates that this formation covers an area of 25,974 square miles, and contains an actual and probable reserve of 189,450 million tons. The quality of coal ranges from bituminous to sub-bituminous.

The Edmonton formation contains two horizons. The upper-most seam occurs near the top of the formation, and varies in thickness from about five feet, south of the Bow River, to a maximum of twenty-five feet on the North Saskatchewan west of Edmonton. About five to six hundred feet below the upper seam a number of seams occur near the base of the formation. They extend from near the Boundary to the vicinity of Morinville, north of Edmonton. Dowling has estimated that the actual area in this formation containing available coal is 25,235 square miles, which will produce 383,235 million metric tons. To this may be added a probable reserve of 27,170 square miles, which would produce 417,261 million metric tons. The quality varies from bituminous to lignite. Much of it may be classed as sub-bituminous. The term "domestic coal" has been applied to the grade of coal mined from this horizon.

In conjunction with this great supply of coal the presence of iron ore of even moderate quality would be a most valuable asset as the basis of future industrial development. Although iron occurs in several forms no deposits have as yet been found of a size and quality to warrant development, either within the province or in adjacent regions to the north or in British Columbia.

Besides coal a number of other minerals of much less economic value are found within the province. (1) Natural gas is widely distributed throughout the underlying rocks. However, it is only in the southeast, in the neighborhood of Medicine Hat, that it is of the "dry" variety, which is the most available for use. Tar sands which may prove valuable occur along the Athabasca River. The existence of tar sands and natural gas indicated the presence of petroleum, but the location of large reservoirs of oil is still a matter of conjecture. Resources of clay and shale suitable for the manufacture of brick, tile and pottery are widely distributed throughout the province. Salt springs and deposits of rock salt of commercial value occur in northern Alberta. Gold is found

(1) Allan: First and Second Annual Reports.



in small quantities along most of the rivers rising in the Rocky Mountains. It is found in paying quantities only on the Peace and the North Saskatchewan rivers.

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CHAPTER II

THE FUR TRADE

Alberta as a province, did not come into existence until 1905. It was, before that, part of the North West Territories, but the separate political history of the Territories dates only from 1870. Previous to that date Alberta was merely a part of the whole Northwest. It has, therefore, no early history distinctly its own. The history of the early development of Alberta can be treated only as a part of the general history of western development.

The exploration and opening up of the Northwest was due chiefly to two causes. It was to some extent, as Black remarks in his history of Saskatchewan (1) "the practical outcome of an impractical dream", the result, that is, of the long-cherished hope of finding a Northwest passage to India. It was this hope which actuated the work of LaVerendrye, who may be said to have opened the way for the exploration of Western Canada. La Verendrye himself pushed westward as far as Portage La Prairie in Canada, and the Missouri Valley in the Present State of Montana, while his sons journeyed westward through (1) "Saskatchewan and the Old North West " p5.

what are now the Northern States, to the Rocky Mountains.(1). But the other far more important cause of western development was the impetus which the fur trade gave to exploration. The search for a Northwest passage was a costly project, and was abandoned for long intervals, so that for many years the only attraction which the Northwest held for the outside world was the wealth in furs. It was the hope of gain that led traders to penetrate farther and farther into the wilderness; the story of the opening up of the Canadian west is, for the most part, the story of the extension westward of the fur trade.

Three distinct periods may be noted in the furtrade insofar as it concerned the early history of the West. These were:-

- (1) The French regime. This period, the beginning of which can only be indefinitely set as some time previous to 1750, lasted until 1769.
 - (2) The period of free trade, following the English conquest of Canada, lasting from 1769 until 1821. This was a period of rivalry, first among independent traders then among Companies.
 - (3) The period from 1821 until 1870, during which the Hudson's Bay Company had a monopoly of the fur trade
- (1) Black pp31.32.

Little is known of the actual extent of the fur trade carried on in the far west of Canada during the French regime, but there is evidence to show that it was carried on there to a certain extent, and that French fur traders were the first white men to enter the present province of Alberta. There is, for instance, the testimony of de Niverville, one of a party of exploration under LeGardeur St. Pierre, who in 1750 took up La Verendry's work where he had been obliged to drop it. St. Pierre relates in his journal that De Niverville gave him an account of "what he had learned at the settlement he made near the Rocky Mountains that a party of Indians who were going to war met with a nation loaded with beaver, who were going by a river which issued from the Rocky Mountains to trade with the French who had their first establishment on an island at a small distance from the land. The Indians positively asserted that the traders were not English"(1) This indicates that the French traders had penetrated as far as the Rocky Mountains at least some years before 1750. There are also records of the existence of a French fur post, La Jonquiere, somewhere near the base of the Rockies. Accounts differ, however, as to its location and the date of

(1) Begg: "History of the North West" Ip86

of its establishment.(1).

Rivalry between French and English traders in the regions near Hudson's Bay began with the establishment of the Hudson's Bay Company in 1670, when that Company was given a monopoly of the fur trade and absolute control of the Territories drained by rivers flowing into Hudson's Bay. However, competition scarcely extended into the interior. The English adventurers were content to remain at their posts on the shores of the Bay, trying to induce the Indians to bring their furs to them. Even then the Hudson's Bay Company seems to have exercised a powerful influence over the Indians of the interior. Father Lamorenerie, a member of St. Pierre's expedition of 1750, relates several instances of this influence, saying of the English: "the Indians being so greatly afraid, their threats alone are able to make them undertake anything."(2). The only English trader who pushed westward in rivalry with the French at this time was Anthony Hendry. In 1754 he went up the Saskatchewan River as far as the forks, and into the country of the Blackfoot Indians of Southern Alberta. He is the first man of whose entrance into Alberta we have any definite record. (3)

(1) Davidson: "The North West Company". p32.
 (2) Begg I: p.85
 (3) Black, p.34

With the fall of New France in 1759, the activities of the French governmental officials in connection with western trade ceased. Its control passed entirely into the hands of the English. The license system of the French was abolished and free trade was established. This was followed by a rapid development of independent trading organizations with their headquarters in Montreal and Quebec. Some of these organizations, which were composed chiefly of Scotch merchants, took into their employ experienced French voyageurs and outfitted them for long trips into the "pays d'en haut", the remote Indian country. In other cases some of the partners themselves decided to penetrate the Indian Territory and carry on the trade. Among these early traders operating from Montreal were the Frobishers, Thomas and Joseph, Currie Finlay, Peter Pond and Alexander Henry. All of them reached the present province of Saskatchewan (1). The first of them to enter Alberta was Peter Pond, who in 1777 reached Lake Athabasca, and the next year established the pioneer fort in that region, thirty or forty miles south of the lake, on the Athabasca River. This was the only fort in that region until 1785 (2). The famous Fort Chipewyan on Lake Athabasca was built

(1) Black pp. 36, 37
 (2) Mackenzie "Voyages", p. 12

in 1788 by Roderick Mackenzie, a cousin of the explorer, Alexander Mackenzie.

During this period of rivalry each trader was concerned only with his own immediate interests, paying no attention to the permanent welfare of the trade. This resulted in quarrels among traders, Indian disorders and trade losses. The merchants who were outfitting the traders soon realized the advisability of combining their interests, and as a result, a company of the traders at Sturgeon Lake was organized in 1778 with Peter Bond at its head. This was the origin of the famous North West Company formed as such in 1783 by a union of the most prominent Canadian merchants and traders. Within a short time this became a powerful rival of the Hudson's Bay Company. After the formation of the North West Company the practice of private merchants sending out traders gradually died out. There were a number of unsuccessful attempts at this, the last instance on record being in 1806 (1). By about 1798 the fur trade may be said to have passed from the hands of private individuals into the control of companies.

Some idea of the extent and value of the fur trade at this time is given by a statement in a

(1) Begg I, p.96



letter written by Mr. Charles Grant, a fur trader, to General Haldemand, in 1780. He states that on an average the fur trade in late years had procured an annual return to Great Britain of £200,000. (1)

A bitter struggle of nearly forty years was now waged between the Hudson's Bay Company and the North West Company, which was of some significance in the development of the west because of the impetus it gave to exploration.

The "Nor-Westers", after they were organized as a Company, continued their energetic efforts to gain the western trade. They pushed on to the north and west far ahead of the older companies and built forts on the Peace River, Lake Athabasca and the Greater and Lesser Slave Lakes. It was under the employ of the North West Company that Alexander Mackenzie made his trip to the Athabasca region in 17,87, and subsequently carried out his expeditions to the Arctic and Pacific Oceans.(2). A little later, at least three other explorers of note appeared among the traders of the Company. Most important among these was David Thompson, who was sent to the Northwest by the Hudson's Bay Company, but joined the rival Company in 1797. He traversed many hitherto unexplored portions of Alberta, as well as the region west of the Rockies. He pene-

(1) Ibid p.91

(2) In 1792, Mackenzie wintered in Alberta, on the Peace River at the mouth of White Mud River (Davidson p.63)

trated the country of the Blackfeet Indians, and it is probable that it was he who established Bow Fort, near the present site of Calgary in 1802 (1) Between 1808 and 1811, both he and Alexander Henry, the younger, also a North West Company trader, travelled extensively throughout the regions of the upper Saskatchewan River, adding considerably to the scanty knowledge of the country (2). Daniel Harmon was another "Nor-Wester". It is from his journal, written between 1800 and 1819 while he was stationed at various posts on the Peace and Athabasca valleys, that we have almost the first mention of the agricultural possibilities of those regions. It might be noted that although these, and many of the other famous explorers of the West were fur traders, their explorations were often carried out in spite of the companies they represented, rather than because of any encouragement given by them. (20).

Competition engendered by the formation of the North West Company proved effective in spurring the Hudson's Bay Company into activity. As noted before,

(1) Black, p 43

(2) J. B. Tyrrell: "David Thompson's Narrative": Harmon's "Journal" Mackenzie's "Voyages": Preface: Burpee: Search for the Western Sea". p.167.

(3) Begg I. pp.207-214



this Company, prior to this time, had taken very little interest in exploration, but kept close to the forts on the Bay. The advent of free trade had aroused them from their lethargy sufficiently to send Hearne on an exploratory trip in 1770. In 1774 he established Cumberland House, below the forks of the Saskatchewan. Aside from this one instance, however, the Company took no active steps in trading by interior posts until the formation of the new company. After that event the old Company displayed great zeal in competing for the trade of the interior. During the next twenty years it extended its forts from Cumberland House to the Rocky mountains, planting them beside those of the rival company in many cases. Westward from Cumberland House this famous line of forts, representing both companies, included Fort a la Poudre, Fort George, Fort Pitt, Fort Victoria, and two forts, near the present site of Fort Saskatchewan, in which the city of Edmonton had its beginning. These were Fort Edmonton, built by the Hudson's Bay Company in 1795, and Fort Augustus, built by the North West Company in 1708. Still farther west were Rocky Mountain House and Jasper House. On a line further north, in the Athabasca and Peace regions were Fort Chipewyan,



(1)
 Vermilion and Macleod. Chesterfield House on the South gaskatchewan and Bow Fort on the Bow River were established during the period of rivalry, but had to be abandoned within a few years owing to the hostility of the Blackfeet Indians.

The activities of the North West Company in the far west proved so successful that during the early years of the struggle they possessed almost a monopoly of the trade of that region at the expense of the Hudson's Bay Company. (2) The rapid growth of the Canadian company's trade is shown by the fact that in 1788 its value did not exceed £40,000, but before the end of the century its annual value was very near £120,000. This company possessed certain advantages in the early years of its struggle with the older company. It was so organized that it offered greater opportunities for advancement to its employees than did its rival. This, as might be expected, secured for it more devoted and more energetic service.

Also it employed chiefly French Canadian voyageurs and traders, who were much more popular with the Indians and much more successful in dealing with them than the Orkney men employed by the Hudson's Bay Company. (4)

(1) Atlas of Canada, 1906, p.32.

(2) Davidson: "The North West Company", p.71.

(3) Bryce: "Remarkable History of the Hudson's Bay Company" p.120.

(4) Davidson, p.71.

As the struggle continued, however, the Hudson's Bay Company itself began to employ French Canadians to some extent, and displayed greater activity along all lines, until it finally succeeded in destroying the Canadian Company's advantage in the North West. The North West Company, too, was weakened by internal quarrels; in 1798 a number of traders seceded to form the XY Company, but they reunited with the "Nor-Westers" in 1805. The Company also suffered from competition with an American Fur Company west of the Rockies, and from troubles with the Indians of that region. During the later years, quarrels between rival traders often resulted in bloodshed and the destruction of forts, became of increasingly frequent occurrence. The Indians were plentifully supplied with liquor by both Companies and were frequently incited to crimes by one side or the other. The disturbances increased with the founding of the Red River Colony by Lord Selkirk in 1812, as this threatened to cut off important hunting grounds of the North West Company. The fur trade itself suffered under such conditions, and profits dwindled. Both Companies were becoming exhausted. Accordingly in 1815 the North West Company made overtures for union, but Lord Selkirk, who

owned a controlling share of Hudson's Bay Company stock, was unalterably opposed to such a plan. His death in 1820 opened the way for coalition, and in 1821 the two Companies agreed to unite under the name of the Hudson's Bay Company. The North West Company transferred all its property to the new Company, and its partners became members of the latter. An Act was passed by the British Parliament in 1821 by which all the rights and privileges of the two old companies were conferred upon the new one. It was given in addition the exclusive right of trade for twenty-one years in all the lands either east or west of the Rocky Mountains, not included in the original charter. These lands were known as the Indian Territories, while the land granted in the original charter, namely, that drained by rivers flowing into Hudson's Bay, was known as Rupert's Land. In 1838 the exclusive trade license was extended for a further period of twenty-one years.

The Hudson's Bay Company thus became, as Begg says in his history, "the inheritor and representative of all previous fur companies", (1) and for some years did practically what it pleased in Rupert's Land and

the Indian Territories. It was the sole source of supply for the Indians, who were the only inhabitants of the country except for the Company's servants and the Red River settlers, and the only market for the disposition of their furs. This state of monopoly and the cessation of rivalry among traders resulted in conditions of comparative peace and order in the Northwest, beneficial both to the Indians and to the fur trade itself. One important achievement was the gradual reduction of the liquor traffic which the Company effected. We are able to form some idea of the numbers of Indians the Company was dealing with at this time, as an estimate as accurate as was possible was made in 1857 from information gathered during several years prior to that. The total number of Indians in Rupert's Land and the Indian Territories was found to be between fifty-five and fifty-six thousand. (1) The numbers frequenting the various posts of the Company in Alberta were as follows:-

Fort Chipewyan	3,750
" Dunvegan	400
" Vermilion	250
" Fond du Lac	150

(1) Estimate by Sir George Simpson- Report of Committee of 1857, p 57.



Fort Edmonton	7,500
" Rocky Mountain House	6,000
" Lac la Biche	500
" Lesser Slave Lake	400
" Jasper House	200

Total..... 19,150 (1)

Various instances of the flourishing condition of the Company's trade at this time may be given. The total number of trading posts increased from 136 in 1836 to 154 in 1856. (2) The number of plain-hunters in the North West also increased rapidly. These plain-hunters were a very important class of employees, being the men sent out on the annual summer and fall buffalo hunts to obtain supplies of pemmican, dried meat, robes and skins. The number of "buffalo carts" sent out with these hunting expeditions at successive periods were as follows:-

	<u>Number of Carts.</u>
1820	540
1825	680
1830	820
1835	970
1840	1270 (3)

(1) Report of Committee of 1857 - Appendix, p 365.

(2) Begg I. p 207.

(3) Begg I, p 219.

The Company also began to use ox-carts to a large extent for transporting its supplies overland, instead of sending them by canoe or boat. At this time about 1840, there were from 300 to 500 of these wooden carts sent annually into the Saskatchewan district. The trail ran from Fort Garry to Carlton, about 150 miles northeast of the present city of Regina, thence up the Saskatchewan valley to Fort Pitt, on the river northwest of Battleford, near the boundary of Alberta, and thence to Edmonton.

It is interesting to note the effect which the change in methods of transportation had on the importance of Fort Edmonton. The two old forts were destroyed by Indians about 1807, and a little later, two new forts were erected farther up the river. These in turn were abandoned and two new forts were built near the present site, about 1819. (1) After the union of the fur companies in 1821, the two forts were amalgamated under the name of Fort Edmonton. Here an extensive trade was carried on both with the Indians of the mountains and of the plains; many even of the Blackfeet and Piegiens came there to trade, as there was no post in Southern Alberta. Because of its position at the head of navigation

(1) Edmonds: A Brief History of Edmonton, p 4.



on the North Saskatchewan, Fort Edmonton was for many years the chief distributing centre of the fur trade of the Northwest. With the change from canoes to ox-carts for transportation, it lost this position in favor of Fort Carlton, the centre of the buffalo trade. Edmonton did not regain its former importance until the coming of steam navigation on the Saskatchewan in the eighties.

As might be expected, the Hudson's Bay Company made large profits during the period it had a monopoly. No figures are available for the early years, but it is known that between 1839 and 1856 the average annual profits were £ 65,573, or an average of 12% on the capital invested.(1) The capital stock increased from £400,000 in 1821 to £ 500,000 in 1857, partly by means of profits carried to stock. (2) It was also estimated in 1857 that the total amount of wealth sent to England from the fur trade up to that time was £ 20,000,000 (3). Of course it is impossible to say how much of this came from the West, but certainly it contributed a large share. It is true of the West, as of Canada as a whole, that part of the wealth taken from it by English capitalists through the fur

(1) Testimony of Edward Ellis before the Committee of British House of Commons, 1857 - p 326.

(2) Encyclopedia of Canada II p 51.

(3) Myers History of Canadian Wealth , p 135.

trade, was later re-invested in railways and other projects for its development.

The almost feudal rule exercised by the Hudson's Bay Company over its territories was unchallenged until the early thirties. About 1833, however, events occurred which began to interfere with the Company's monopoly of trade, and to undermine its authority in maintaining law and order. In the first place the Red River settlers began to assert their right to free trade. In 1834 some of them began importing goods from England and the United States. At first they did this for their own use, but later, as they grew bolder, for trade and speculation. However, they did not dare to trade in furs until after the occurrence of the Sayer trial, in 1849. This event Begg calls the death knell of the Company's trade monopoly. The Company tried to exercise its authority in punishing an infraction of its exclusive right to trade. The trial aroused such a demonstration of public opinion against the Company that the case had to be dropped. After this, the petty traders openly traded in furs as well as in merchandise. The Company made no more attempts to use its authority to suppress them, but trusted to a competitive struggle in which it

possessed all the advantages of superior resources and an established position. As far as the North West was concerned, any free traders who ventured there were practically at the mercy of the Company's officials because of the impossibility of obtaining supplies through any other source. As a result, there was very little free trading west of the Red River Settlement until American traders began coming into Southern Alberta from the Missouri Valley in 1866.

At the same time as the Red River settlers were asserting their independence, a feeling of opposition to the Company was growing up in the Provinces of Canada. A petition sent by the Toronto Board of Trade to the Legislative Council of Canada in 1857 represents the state of public opinion in Canada on North West matters at this time. In this petition the Company is designated as "a Company to all intents and purposes foreign to the interests of Canada, and owing no responsibility to her". The Company's legal rights to its chartered lands is challenged and its trade monopoly declared harmful and unjust. Several dispatches were sent by the Canadian Government authorities to the British Parliament, requesting an inquiry in regard to the Company's rights and privileges. The result

of this agitation was the appointment in 1857 of a Committee of the House of Commons "to consider the state of those British possessions in North America which are under the administration of the Hudson's Bay Company, or over which they possess a license to trade". The Canadian Provinces sent Chief Justice Draper to England to represent their interests in the investigation. In presenting their case to the Committee, Draper claimed that the interests of Canada were involved in the inquiry in the following connections : - (1) in regard to the settlement of disputes as to the true boundary of Canada; (2) in the interest of maintaining the Northwest as a British possession; and (3) because of the fact that the people of Canada looked to that territory as a country in which they ought to be permitted to extend their settlements.

The Committee heard the testimony of a large number of witnesses, including travellers, missionaries, traders and officials of the Company, among them, Sir George Simpson, Governor of the Company from 1821 to 1856. The report of the Committee was to the following effect: - Canada should be allowed to annex to her

territory the Red River Settlement, and any portion of the land in her neighborhood that might be available to her for the purpose of settlement, as soon as she was willing to open and maintain connections with such territories and assume government over them. The connection of the Company with Vancouver Island should be terminated. Whatever the validity of the Company's right to its chartered lands, it was highly desirable that it should be allowed to retain its exclusive trading privileges in these lands for the time being at least, as an open competition in the fur trade would be demoralizing to the Indians, and result in the destruction of the fur bearing animals.(1)

Following this report, the grant to the Company of Vancouver Island, which expired in 1858, was not renewed, nor was the license for exclusive trade in the Indian Territories, which expired in 1859. These events, as well as the whole agitation, served to weaken the authority of the Company in the lands it still held by charter, that is, Rupert's Land. Exploratory expeditions were sent out by the British and Canadian governments under Palliser, Dawson and Hind in 1857-1863. These further weakened the prestige of the Company, as they were regarded as forerunners

(1) Report, Committee of 1857, pp. 10-14.

of a change of sovereignty. There was the additional fact that in a part of its territory the fur trade was no longer profitable. This is made clear in a report by Captain Butler in 1871 to Lieutenant Governor Archibald of Manitoba on conditions in the Northwest.(1) He says: " The fur trade of the Saskatchewan district has long been in a declining state; great scarcity of the richer description of furs, competition of free traders, and the very heavy expenses incurred in the maintenance of large establishments, have combined to render the district a source of loss to the Hudson's Bay Company. This loss has, I believe, varied annually from £2,000 to £6,000." Doubtless partly because of this decline in the profits of the trade, as well as and partly on account of the increasing difficulty of maintaining law and upholding its authority, the Company was not unwilling to enter into negotiations for transferring the territory to the Canadian government. With the aid of the Imperial Government, an agreement was reached in 1869, by which the Hudson's Bay Company surrendered its lands to the Dominion Government. They received in return £300,000 and retained certain lands around its forts and one-twentieth of the land in the Fertile Belt, that is, the country between the North

(1) Quoted in MacRae: "History of Alberta" pp.216,241.

Saskatchewan River and the international boundary , extending from the Lake of the Woods to the Rocky Mountains. The formal transfer of the territory took place in 1870.

The effect of this long period of the Hudson's Bay Company's possession and trade monopoly on the development of the West has been a matter of controversy. It is claimed that the policy of the Company retarded settlement for half a century at least. Fur trade and settlement cannot of course exist successfully side by side, and the Hudson's Bay Company, as a purely fur trading concern was naturally opposed to the settlement of its territories. Many of the officials, like those of all the previous fur companies spread abroad disparaging reports of the resources and of the agricultural capabilities of the country, with a view to discourag^{ing} immigration. As an example of this practice, the statement of Sir George Simpson before the investigating committee of 1857, may be mentioned. As Governor of the Company for thirty-eight years, he had travelled extensively over its territories. His report of their agricultural possibilities were very discouraging; he said plainly: "I do not think that any part of the Hudson's Bay Company's territories is well adapted for settlement; the

crops are very uncertain."As the majority of witnesses gave reports of a much more encouraging nature, it would appear that Sir George Simpson's observations were colored somewhat by his regard for the interests of the Company.

By a vote of the shareholders in 1866, any policy of colonization on the part of the Company was absolutely condemned. Evidently no encouragement was offered to settlement while the Company was in possession . But in any case it is extremely doubtful whether there would have been any disposition for settlers to come in during this period. The Canadian Northwest was a remote and almost unknown country, with no means of communication with the East and with no markets for produce. Until the provinces of Canada were themselves united and prepared to administer the country and open up communication with it, it offered little inducement to settlers.

Moreover, it is probable that the possession of the Canadian West by the Hudson's Bay Company was the chief cause of its remaining British territory, instead of being absorbed as part of the United States, into whose territories directly to the south, settlement was advancing. The claims of the United States in the

Northwest were made clear by a treaty signed with Russia in 1814, in which the fifty-fourth parallel was named as the boundary between Russian and American territory. When the boundary between Canada and the United States was actually settled by the Treaty of Ghent in 1814, Britain was able to successfully base her claim to the territory between the fifty-fourth and the forty-ninth parallels upon its occupancy by the Hudson's Bay Company.

Another great service rendered by the Hudson's Bay Company was the establishment of a tradition of peaceful dealings with the Indians. It was largely due to the Company's policy towards the Indians, that Canada was enabled to take possession of Rupert's Land without being troubled by Indian outbreaks such as characterized the settlement of the Western States. Although there can be no doubt as to the beneficial results for Canada of the Company's Indian policy, the question of the actual treatment accorded the Indians has been the subject of much dispute. Considerable light is thrown on the question by the evidence given by witnesses before the Committee of 1857. It is quite clear that the policy of the Company was based on their realization of the fact that the preservation of

the Indian tribes, and the maintenance of friendly relations with them, was essential to the carrying on of the fur trade. As a result, a sort of paternalistic rule was established. In accordance with this the Company made no pretence of dealing fairly with the Indians in paying for their furs; Company officials admitted that large profits were made from the traffic with them. (1) At the same time the Company undertook to supply the Indians with food, clothes, ammunition and, when necessary, medical care, whether they could pay for these things or not. As this plan was based purely on commercial advantage, there was often a scarcity of supplies at the Company's posts, the aim being to furnish the smallest amount possible, consistent with keeping the Indians alive and able to hunt. Officials of the Company claimed that owing to the improvident nature of the Indians, such a method of keeping them dependent on the Company was the only possible way of dealing with them. At any rate, it proved successful in maintaining peace and order.

In addition to the historical fact of the absence of Indian disorders in the West during the

Hudson's Bay Company's rule, we have the testimony of

(1) Minutes of Committee 1857: Evidence of Sir George Simpson, Governor of Hudson's Bay Territories, p. 87; Dr. John Rae, medical officer for 20 years, pp. 34, 500.

several impartial observers of conditions in the West at the time of the transfer of the country to Canada, to the effect that this freedom from Indian troubles was largely the result of the course followed by the Hudson's Bay Company. Both Palliser and Macoun held that opinion. The former records in his journal (1) that the Indians of the North Saskatchewan Valley had been for many years on the best of terms with all travellers which fact could "in some measure be accounted for by the justice and good faith which characterized all the dealings of the Hudson's Bay Company with them."

Following the purchase of the Northwest by the Dominion Government, the Fur trade gradually passed to the far north. The way was opened at last for the settlement and development of the Prairie Provinces.

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(1) p. 18.

CHAPTER III.

EARLY TESTING OF AGRICULTURAL POSSIBILITIES.

During the period of the fur trade the common belief of the outside world was that Northern Alberta was a frozen wilderness and Southern Alberta an arid waste. The policy of the fur companies was to encourage this belief. Nevertheless it was inevitable that the true nature of the country should gradually be made known by the reports of some of the companies own traders and explorers. In this way Alberta's agricultural capacities first became well enough known to attract settlers.

The northern portions of the province were first penetrated by fur traders. From the north, therefore, came the first indications of agricultural possibilities in the form of evidences of great success in the cultivation of crops and gardens around the fur posts. The first report was in connection with Peter Pond, who in 1778 established the pioneer fort in the Athabasca district (1) We have this record about him in MacKenzie's Voyages: (2) "In the fall of the year

(1). About thirty miles above the mouth of the Athabasca River (Davidson: The North West Co. p.40)

(2) Voyages - p 129 .

1787, when I first arrived at Athabasca, Mr. Pond was settled on the banks of the Elk River, and had farmed as fine a kitchen garden as I ever saw in Canada ". Mackenzie himself observed that he had no doubt that the soil of this region would prove productive. "if a proper attention were given to its preparation". But on the whole, Mackenzies reports of the North West were not optimistic. In a note at the end of his Voyages where he gives a brief geographical outline of the whole western portion of British North America from the standpoint of opening it up, he designated a region extending from St. Mary's Strait to the Pacific, bounded on the south, approximately, by what has since become the International Boundary and on the north by "the Frozen Sea and Hudson's Bay", thus including the territory in which we are interested, and says of it: "The whole of this country will long continue in the possession of its present inhabitants (the Indians) as they will remain contented with the produce of the woods and waters for their support, leaving the earth in its virgin state. The proportion of it that is fit for cultivation is very small, and is still less in the interior parts; it is also very difficult of access and whilst any land remains uncultivated to the south

of it, there will be no temptation to settle. Besides, its climate is not ⁱⁿ general sufficiently genial to bring the fruits of the earth to maturity." Of course Mackenzie had actually explored only comparatively small parts of these regions.

The next recorded report on the fertility of the Northwest was of a more encouraging nature. In 1808, Daniel Harmon, an agent of the North West Company stationed at Dunvegan on the Peace River, wrote in his Journal: "Our principal food will be the flesh of the buffalo, moose, red deer and bear. We have a tolerably good kitchen garden and shall not want the means of a comfortable subsistence".⁽¹⁾ And again in 1809: "We have cut down our barley, I think it is the finest that I ever saw in any country";⁽²⁾ while after speaking of the luxuriant growth of his garden in 1810 he expresses his opinion that "wheat, rye, barley and oats would grow well on the plains around us".⁽³⁾

The early reports from the north apparently attracted little attention in the outside world.

The years that followed witnessed the bitter

(1) "Journals" p.142
 (2) Ibid p.146
 (3) Ibid p.152

struggles between the two great fur companies and the extension of their posts throughout the Saskatchewan valley. Only a few reports of attempts at agriculture around these posts have been preserved. Among them was that of Ross, a fur trader, who visited Fort Edmonton in 1825. He made the following note on its agricultural activities: "Attached to the place are two large parks for raising grain, and the soil being good, it produces large crops of barley and potatoes; but the spring and fall frosts prove injurious to wheat, which in consequence seldom comes to maturity." (1)

The first scientific explorations in the province began in 1857. In that year two official explorations were sent to explore a great stretch of territory extending across the central and southern parts of the province. They resulted in the application, for the first time, of the term "fertile belt" to that territory. The expeditions were those of Captain Palliser, (2) 1857-60, and of S.J. Dawson

(1) "A Brief History of Edmonton" p.6.

(2) Captain Palliser was commissioned by the British government to explore "that portion of British North America which lies between the northern watershed and the frontier of the United States, and between the Red River and the Rocky Mountains" and endeavor to find a practical route through it.

and Professor Hind (1) 1857-8. In Professor Hind's report, published in 1860, he wrote: "The discovery of a fertile belt of country extending from the Lake of the Woods to the Rocky Mountains, gives to this part of British America a more than passing interest", and in another place: "North of the great American desert there is a broad strip of fertile country. rich in water, wood and pasturage, drained by the North Saskatchewan, and a continuation of the fertile prairies of the Red and Assiniboine Rivers. It is a physical reality of the highest importance to the interests of British North America that this continuous belt can be settled and cultivated."(2)

In Captain Palliser's report, published in 1863, he describes a fertile belt of country lying between the great American desert to the south and the northern forest area. This includes all of Alberta south of the North Saskatchewan with the exception of an arid patch in the south where the central desert region of the United States "extends for a short way in to

(1) The Dawson expedition was sent by the government of the united Canadas to examine the resources of the Red River Colony and the Assiniboine and Saskatchewan country ("The Unexplored West" p2.Dept. of the Interior)

(2) Quoted from "The Unexploited West" p.2

Canada, forming a triangle having for its base the 49th parallel from longitude 100° to 110° and with its apex reaching to the 52nd parallel of latitude⁽¹⁾ Palliser says that this fertile belt would be valuable for mixed agricultural purposes; its grain growing capabilities were not yet proved.

These official reports established as an actual fact the existence of rich arable regions in the North-west. Furthermore, they captured public attention in England and Canada by the use of the phrase "fertile belt" to describe them.

However, this term was applied in so far as Alberta was concerned, chiefly to the North Saskatchewan Valley. The reports did nothing to dispel the popular impression that the land to the north was a frozen waste, destined so to remain, while Passlier's report at least, strengthened the belief that southern Alberta was arid and altogether useless for agriculture⁽²⁾ As late as 1871, Butler in his "Great Lone Land" described it as "arid, treeless, and impossible of settlement."⁽³⁾ A change in the tone of statements about the

(1) "Journals" p. 7

(2) "Journals"- General Report, p 7

(3) p.374 Captain Butler had been commissioned by the Territorial government in 1871 to investigate and report upon conditions in the Northwest.

south occurred after the inauguration of the Boundary Survey in 1872. With this, and the coming of the Mounted Police in 1874, more favorable reports began to be circulated, particularly in regard to ranching possibilities.

The next exploration of importance after Palliser was that of Professor Macoun, carried on intermittently from 1875-1880, his observations appearing in 1882 in his "Manitoba and the Great North West". He supported Palliser's reports of the Saskatchewan Valley, but did his best to correct the prejudice against the southern plains. He examined that country carefully and claimed that the arid appearance of a large part of it was the result of prairie fires and not a natural climatic feature of the country.(1) He also extended his observations north to the Peace and Athabasca regions, and submitted considerable evidence in regard to their agricultural possibilities(2) He told of the luxuriant growth of gardens and natural vegetation, noted the finest barley he had ever seen, growing at Fort Vermilion, and gathered grain from Fort Chipewyan which was awarded a Medal at the Centennial Exposition at Philadelphia in 1876.

(1-) "Manitoba and the Great North West" pp.103,144
 (2) Ibid pp31, 109-140

Macoun~~t~~ noted regretfully in the preface to his book that Canada's Northwest, no doubt destined to be the granary of the world, had for long years been a blank on the map. But this was no longer true when he wrote. Favorable reports had begun to circulate and to have their effect in attracting settlers. Preparation had been made for a more complete realization of agricultural capacities by settlement and cultivation.

IV Preparation for Settlement -1870-1881 -----

With the transfer of Rupert's Land, and the North West Territories to the Dominion in 1870, these lands were at last ready to be opened up for colonization and development. But before any settlement was possible, the Dominion Government was faced with the necessity of carrying out a number of difficult tasks by way of preparation. The first decade after the purchase was largely taken up with the attempts of the government to deal with these problems. It was thus a period of preparation for development rather than one in which any actual development took place.

The nature of the tasks with which the government was faced can best be appreciated after a study of existing conditions in the Northwest at the time of the transfer. A very clear picture of conditions is given by Butler in a report to Lieutenant Governor Archibald in 1871 (1).

The only settlement of any size in the whole of the territory purchase, was the Red River Colony.

- (1) MacRae, pp 216-240, Captain Butler of the British Army, was commissioned in 1871 by the Lieutenant Governor of the Northwest Territories to investigate conditions in the Saskatchewan valley.

For the rest, the country was inhabited only by the Indians, the Hudson's Bay Company traders, a few free traders, miners and missionaries. There were a few Roman Catholic missions with halfbreed settlements surrounding them, the ones in Alberta being at St. Albert, Lac la Biche and Lac Ste. Anne. These date from some time previous to 1857 as they are mentioned by Dr. Hector in his reports contained in Palliser's "Journals " (1) Gold had been discovered in many of the rivers of Alberta, but few miners had come in, owing to the impossibility of obtaining supplies. Washing for gold was confined almost entirely to the forts of the Hudson's Bay Company. The largest settlement of miners was around Fort Edmonton, where, in 1874, there were a dozen or so (2). In southern Alberta, where there were no Hudson's Bay forts, there were no settlers. John McDougall, who came to Edmonton in 1870 to establish the first Methodist Mission in Alberta, says in his "Western Trails in the Early Seventies": "At this time there was not a bona fide settler south of the North Saskatchewan".

(1) "Journals" General Report p.78

(2) Edmonds; a Brief History of Edmonton, p 11.

Thus the Indians were still the principal inhabitants of these lands. At this time about thirty thousand of them (1) inhabited the plains which are now a part of the three prairie provinces. They were still leading a nomadic life, subsisting on game and fish and still engaged in endless bloody feuds among themselves. Their numbers of course, can only be estimated, as no census was taken until 1881. These Indians were of many different tribes (2). The two principal tribes inhabiting Alberta were the Blackfeet and the Crees. The Blackfoot Confederacy, including the Blackfeet, Piegans, Bloods and Gros Ventres, occupied the south Saskatchewan district of southern Alberta. In all, they numbered between eight and nine thousand. To the north of them, along the North Saskatchewan River were the Plain Crees, numbering about seven thousand. A continual state of warfare existed between these two tribes until in 1871, when a permanent peace was concluded between them. There were, in addition, a number of lesser tribes in Alberta. Among these were the Wood Crees, in the wooded country northeast of the Plain Crees; the Sarcees, in the Battle River District, the Assiniboines, in the foothill west of the Blackfeet; the Chipewyans, in the Athabasca

(1) Dafoe Economic Development of the Prairie Provinces. Canada and its provinces.XX p276
 (2) MacRae pp235-238 description of Indian tribes

district and the Beavers along the Peace River. This gave a total population of between sixteen and seventeen thousand.

There was at the time of the transfer of the North west a greater feeling of discontent and uneasiness among the Indians with respect to the white man than had ever previously existed. The Riel Rebellion had broken the tradition of peace in the North west. Distorted rumours as to its cause reached the Indians of the far west. This filled them with alarm as to the intentions of the Dominion government to deprive them of their lands.

The unfortunate policy of the American government towards the Indians of the country south of the Saskatchewan was another cause of uneasiness. A state of hostility had long existed between the American settlers and the tribes of Sioux, Blackfeet and Piegans which developed about this time into a ^{on a war (2)} fear of extermination on the part of the American government. The ⁶⁹culmination of this boundary warfare occurred in the Cypress Hills massacre in Southern Saskatchewan in 1873 when fifty-six Indians were shot down by American traders who accused them of horse stealing. A large amount of free trading was also carried on in

southern Alberta, chiefly by American traders from Fort Benton, on the Missouri. First coming up in 1866, within the next few years they built a chain of forts in southern Alberta from which they carried on a considerable trade in buffalo robes and other furs in return for whiskey. Lieutenant Governor Morris of Manitoba reported that in 1873, American traders in this and other neighboring regions had shipped out of Canada \$50,000 in buffalo robes and \$100,000 in other furs.

This whiskey traffic was the cause of increasing disorder, ^cpverty and misery among the Indians of southern Alberta and Saskatchewan. The introduction of smallpox among the Blackfeet Indians in 1870 is attributed to these traders from the Missouri valley. The disease spread to the Crees and from them to all the western tribes, causing terrible suffering and great loss of life.

The misery of the Indians was further increased by the rapid disappearance of the buffalo, which occurred during this decade. The suddenness ⁿof their disappearance may be seen by the fact that when the Mounted Police arrived in 1874, they rode for days across the prairies without losing sight of the

immense herds, but in 1879 their numbers had been reduced almost to ~~extinction~~. Probably their rapid disappearance at this time is explained by their wholesale slaughter for the fur market. MacRae in His History of Alberta (1), quotes Colonel Herchmer, formerly Commissioner of the Mounted Police to the effect that the extinction of the buffalo was intentionally carried out by the American military authorities in order to reduce the Sioux to submission. The numbers of robes exported for successive years during this period from Forts Macleod and Walsh, shows the rapid decrease:

	<u>Fort Macleod</u>	<u>Fort Walsh</u>
1877	30,000	18,375
1878	13,000	18,375
1879	5,764	8,617

Canadian authorities in the West realized what was taking place, and in 1877 an Ordinance was passed by the North West Council, forbidding the wanton destruction of the herds, and establishing a closed season. But the very destitution of the Indians for whom this was meant as a protection, made it such a hardship for them that it was impossible to insist on enforcement. This led to its repeal the

the following year. Small wonder that the Plains Indians, seeing the rapid disappearance of their chief means of subsistence, were reduced almost to desperation.

The increasing feeling of uneasiness among the Indians and the disorders in Southern Alberta, plainly showed the necessity for the Dominion Government to establish some agency for maintaining law and order, and guaranteeing the security of life and property. No effective agency was in existence. After the purchase of the Northwest by the Dominion, the Rupert's Land Act was passed in 1869, to provide for the temporary government of the new Territories. It provided for the appointment by the Governor-General-in-Council, of a Lieutenant Governor and Council for Manitoba and the North West Territories, to make laws and administer justice. The governing officers of the Hudson's Bay Company were to continue their functions, as Justices of the Peace (1) In 1870 Lieutenant Governor Archibald of Manitoba was appointed Lieutenant Governor of the Territories. The first Council for the Territories was appointed in 1873 (2) While a legislative and judicial governing authority

(1) - E. H. Oliver, Canadian Archives No. 9 11 p 974

(2) Ibid. p. 988

was thus established, no agency existed for enforcing the law, save the Hudson's Bay Company. The Company, however, had never exercised its governing power to any extent, because as a commercial concern it was dependent on the good will of the natives (1) In the days of its monopoly rule there was little need for the exercise of governmental authority, but with the introduction of free trade, conditions were changing, and there were present steadily increasing elements of disorder.

Other urgent tasks awaited the Dominion Government by way of making lands available for settlement. Indian claims had to be extinguished, the boundary between Canada and the United States determined, surveys carried out and legal means provided for acquiring or transferring lands.

Equally urgent was the necessity of providing some means of communication with the outside world. At this time the easiest means of access was through the United States by way of the Missouri River. For many years after 1874, the supplies for the police station of Fort Macleod and Fort Walsh were forwarded by ox-carts from Fort Benton after being sent up the Missouri by steamer from Bismark: Butler noted

(1) Butler's Reports, MacRae, p.216.

noted in his report that the first supplies to reach Edmonton by ox-cart from Fort Benton, arrived there in 1870. The only alternative means of access was by ox-cart over the old Hudson's Bay route from Fort Garry by way of Forts Carlton and Pitt. Fort Garry itself could be reached by two routes, neither of them very easy. One route was over Canadian soil by a journey of fourteen hundred miles, up the Great Lakes and then over the combined land and water trail from Prince Arthur's Landing (Port Arthur) to Fort Garry. This was the route followed by the Wolseley expedition in 1870. The other way was by rail, through the United States to St. Paul, within 400 miles of Fort Garry, thence over ox-cart trails. There was of course at this time, no public postal service to posts in the North West. The nearest means of telegraphic communication with the East was through Helena, Montana.

With this examination of the problems involved in opening up the new territories for settlement, it remains to be seen to what extent the government was successful in solving them.

The first step in the establishment of law and order was the sending out of the Royal North West

Mounted Police in 1874. In that year an expedition of three hundred were sent out under Colonel French, their destination being the junction of the Bow and Belly rivers. Fort Macleod was built. There the main body of the troop passed the winter, a detachment being sent to Edmonton. Forts Saskatchewan and Walsh were built the next year. At the approach of the troops, the American freebooters abandoned their posts and fled across the border; no more trouble was experienced from them. With their influence removed, the Mounted Police were able materially to improve conditions among the Indians, who had been reduced to great poverty and misery by the whiskey trade and the ravages of smallpox. The Police won the respect of the Indians at the outset, by the justice and firmness of their treatment. They were remarkably successful in their dealings with them, especially in the difficult task of preserving peace between them and incoming white settlers. The presence of the Police in the country was a valuable factor in making possible its settlement and development.

The growth of governmental institutions proceeded gradually in the North West Territories. The

The first important step was the passing of an Act for the organization of the North West Territories in 1876. To quote from Sir Wilfred Laurier "previous to this the Territories had been administered under no special form of government". (1) This Act separated the office of Lieutenant Governor of the Territories from that of Lieutenant Governor of Manitoba. It provided for the appointment of the Lieutenant Governor and an advisory Council of five members by the Governor-General-in-Council. The Lieutenant Governor and his Council were vested with executive powers, and with legislative powers in regard to matters of local concern. The Act also provided that when any district not exceeding a thousand square miles in area attained a population of one thousand adults, it would be erected into an electoral district, entitled to elect a member to the Council. A Legislative Assembly was to be formed when the number of elected members of the Council should reach twenty-one.(2)

The task of quieting the Indian titles to the land was accomplished by means of a number of formal

(1) Debates of House of Commons, 1905, p1424
 (2) Canadian Archives No. 9, IIp1075; the first session of the Territorial Council was held at Livingstone on Swan River in 1877. Thereafter sessions were held at Battleford until 1882, when the seat of government was transferred to Regina.

treaties between the Indians and representatives of the Crown. The whole area of the West was covered by a succession of such treaties, eight in number, which it took twenty-nine years to complete. The first of these treaties was made in 1871. The first five treaties covered principally the lands of the present provinces of Manitoba and Saskatchewan. The lands of Alberta were dealt with by Treaty Number Six, Seven and Eight. Treaty Number Six, with the Cree Indians, was concluded in 1876, at Forts Pitt and Carlton. The land ceded embraced an area of about a hundred and twenty thousand square miles in the Saskatchewan Valley in Alberta and Saskatchewan. (1)

For some years previous to the making of this Treaty, there had been a growing feeling of discontent among the Crees, who feared that their lands were going to be taken from them without compensation. Memorials from their Chiefs were sent to the Lieutenant Governor, and forwarded to the Dominion authorities, who were very slow in taking action. Apparently the treaty was concluded just in time to prevent an outbreak among the Crees.

(1) For boundaries of land covered by treaty see MacRae, p. 316.

Treaty Number Seven, with the Blackfeet Indians, was carried out by Lieutenant Governor Laird, at Blackfoot Crossing in 1877.(1) The lands of southern Alberta were ceded by this treaty. The last treaty, Number Nine, covering the Peace and Athabasca districts was not made until 1899. The boundaries of the Territory ceded by this treaty were very irregular (2). In general the terms granted to the Indians by these treaties were as follows: a present of twelve dollars and an annuity of five dollars for each man, woman and child. Twenty-five dollars instead of twelve was given to each chief and fifteen to each headman. Reserves were set apart on the basis of 640 acres for a family of five. Farming implements, seed grain, cattle and everything necessary for carrying on agricultural operations were supplied. The carrying out of these treaties without the occurrence of any disturbance or bloodshed was a remarkable achievement. This is especially true in the case of Number Seven with the Blackfeet, in 1877, at a time when an Indian war was being waged in the United States in the region directly to the south

(1) John Macdougall of Edmonton was present at this transaction.

(2) MacRae. p.447

With the treaties settled, the slow work commenced of inducing the Indians to settle down quietly in their reserves and become self-supporting by farming. When the government surveys were made, about 1,000,000 acres were set aside as Indian Reserves. The largest of these is the Blood Reserve of 354,600 acres or 540 square miles in Southern Alberta. The other reserves are: the Blackfoot Reserve, 50 miles east of Calgary, of 470 square miles or 308,800 acres; the Piegan, 93,400 acres in extent; The Stony 69,720 acres; the Sarcee, 69,120 acres; the Saddle Lake Reserve of 82,560 acres; and several smaller ones. (1)

During the first few years after the treaties, the Mounted Police experienced considerable difficulty in keeping the Indians on their new reserves and in preventing them from killing the cattle and stealing the horses of the early settlers and ranchers. Kelly in his "Range Men" notes that it was not until about 1895 that the Indians of the south had settled down quietly and begun to engage. By 1900 all of the Indian tribes except the Sarcees, had become nearly self-supporting.(2)

(1) Leo Thwaite: Alberta - p.82

(2) Kelly - The Range Men - p.356

In connection with the treaties, it is interesting to note the estimate of the Indian population of Manitoba and the Territories which was obtained from the treaty payments. This estimate showed a decrease in population of about one-third since the days of the fur trade. This gave the number as thirty-thousand¹ as compared with the estimate of forty-five thousand made by Sir. George Simpson in 1857.

A necessary step towards opening the country for settlement was the carrying out of government surveys. As a preliminary step, the work of marking the forty-ninth parallel, the boundary between Canada and the United States, was begun in 1872. It was done by a joint Commission representing the American and Imperial Governments, who in that year began working westward from the Lake of the Woods. They completed the line to the Rocky Mountains in 1874. The government survey began in Manitoba in 1871. A block system was adopted. This was copied from the one in use in the Western States. The unit was the section, one mile square divided into quarter sections of 160 acres. Each Township was divided into 36 sections which were numbered from the right hand lower corner across the base of the township and back again. A 90

foot road allowance was given in the Manitoba surveys; when the surveys extended to the Territories this was changed to 66 feet. The survey began at the international boundary by the Winnipeg Meridian which was designated the First Prime Meridian. The ranges from this meridian were numbered east and west, and the townships north from the boundary. At intervals to the westward, Second, Third and Fourth Prime Meridians were to be determined, and ranges numbered west from them in a similar way. Provision was made for the "jog" resulting from the narrowing of the meridians as the lines ran north. The whole country was thus laid out in a regular checker-board system. The great advantage of this system was that it made reference and location easy. The disadvantage was that roads did not follow the natural levels of the country, but went up hill and down. This has greatly increased the difficulty and expense of constructing and maintaining roads throughout the West. The survey was completed in Manitoba in 1873, and from then on was gradually extended into the Territories as settlement required. By 1876, detached settlements had grown up in the present provinces of Saskatchewan and Alberta which called for surveys. As it was

necessary that these isolated surveys should correspond to those already existing, a special survey of the North West Territories was begun in that year. This was called the Standard Outline Survey. The object of this survey was to determine the main or standard meridians and parallels, to serve as a basis of extension, at any points desired, of the block surveys. By 1878 this work had been carried westward to the Fourth Prime Meridian, which later became the eastern boundary of Alberta. During 1878 and 1879 the main base lines and meridians were determined within the territory now included in this province, and thereafter the block surveys were gradually filled in to meet the demand of settlers. There is still a narrow strip of unsurveyed land in the northern part of the province.

A system of land regulations was framed for Manitoba in 1871. Although the regulations were altered from time to time as applied to the Territories, the main principles of the original plan were adhered to. The terms granted for homesteading and pre-emption were very liberal. A homesteader on a quarter section was required to pay a fee of \$10.00 at the time of making his application; cultivation and five years residence then entitled him to a patent. The period

of residence was later reduced to three years, with only six months residence required out of every twelve. The pre-emption for an additional 160 acres was purchasable by a homesteader at \$1.00 an acre, without conditions of residence and improvement. The lands exempted from homesteading and preemption were: the lands allotted to the Hudson's Bay Company viz. Sections 8 and 26 out of every township: lands reserved for schools later designated by an Act passed in 1879 as sections 11 and 29; wooded areas were set aside to preserve a permanent supply of fuel and building timber; sites for towns or villages; mineral lands, including coal reserves; (1) and railway reserves.

In connection with the problem of railway reserves the government pursued a most unfortunate policy. They constantly changed the regulations, while they maintained throughout the firm purpose of meeting the cost of a transcontinental road by the sale of western lands. Successive schemes were adopted which involved the reservation from settlement of large blocks of land along the railway (2) Agitation on the part of settlers led to the abandonment of each plan in turn until finally an arrangement was made with the Canadian

(1) Coal districts were later set apart in Alberta (1) on the South Sask. near Med. Hat (2) on the north Sask. near Edmonton (3) on the Bow River (4) on the Belly.

(2) Canada and Its Provinces XX pp.292-3.

Pacific Railway Syndicate in 1881. Under this plan the government reserved all the odd-numbered sections throughout the west for railway purposes, and threw the remaining even-numbered sections open for homesteading.

The continual changing of regulations had a most discouraging effect on immigration. The dissatisfaction and agitation which the measures caused, served as a warning to prospective immigrants against entering the country. Thousands of settlers turned aside for this reason, into Minnesota, Montana and the Dakotas.(1) Manitoba, of course suffered particularly in this regard, as it was more open to settlement than the Territories, but the development of the latter suffered indirectly through the retardation of settlement in Manitoba.

The first attempt to open up communication with the outside world was the project of a road by which the western prairies were to be made accessible from British Columbia. In 1864 a road was opened from Yale, the head of navigation on the Fraser River, across the Cascade Mountains, to Cariboo, in the plateaus between the Cascade and the Rocky Mountains. At that time the feasibility of continu-

(1) Ibid.p.293; Page II, pp.282,290.

-ing the road across the Rocky Mountains range through the Yellow Head Pass was pointed out, but although the project was discussed, it was never carried out.

The more important question was that of communication with the East. The first efforts in this direction were those directed toward making the Red River Colony more accessible from the East. Fort Garry received its supplies chiefly from St. Paul. Up to 1872, these were "freighted" by ox-cart, but in that year steamers doing a general carrying trade began running on the Red River between Winnipeg and Moorehead about two hundred miles northwest of St. Paul. This marked a great advance in ease of transportation. (1)

The next step was an attempt at improving the Canadian route to Winnipeg, the "amphibious" Dawson road from Port Arthur. The history of this route goes back to 1858. when the explorer, Dawson, reported favorably upon the feasibility of a combined land and water route from Thunder Bay to Fort Garry. Construction of the road was begun in 1868. It was opened in 1870 as a route for the Wolseley expedition to the Red River Valley. In 1874 it was put into operation

(1) Hudson's Bay Company steamers had been running on the river for some years, but they carried only the Company's supplies (Canada and its Provinces XXp.287)

as an immigrant route. However, its use proved so costly and unsatisfactory that it was abandoned in 1876. The result of this abandonment was to divert the whole stream of immigration to the United States, as the only remaining means of ^asuccess from the eastern provinces was expensive and difficult. This was in summer, by rail to Collingwood or some other lake port, steamer to Duluth, rail to Moorehead (about 300 miles south of Winnipeg) and steamer via Red River to Winnipeg. In winter the route was rail to Moorehead, and stage from there to Winnipeg.

In the meanwhile, steamer service was being opened between Winnipeg and points on the Saskatchewan River. Navigation of the Saskatchewan by steamer was first projected in 1871, when Sanford Fleming, in connection with his railroad survey, reported that the Saskatchewan was navigable from Grand Rapids at its mouth to Edmonton. In 1875 the Hudson's Bay Company steamer "Northcote" made its first trip between Winnipeg and Edmonton. Until 1881 there was only the one steamer of any size on the river; this did not by any means furnish adequate facilities, and the banks of Grand Rapids were often piled high with freight seeking transport to Prince Albert or Edmonton. Both freight and passenger rates on the steamer were very high (1)

(1) See footnote (1) p.78.

These achievements toward opening up communication with the West were merely preliminary steps to the much more important undertaking of a transcontinental railway within Canadian territory. Sentiment in favor of the idea had been aroused in Canada by the fear of the United States forestalling Canada in the building of a transcontinental line with a view to opening up and annexing the Canadian North West. A report from the United States Senate Committee on the Pacific Railway, dated 1869, shows that Canada had reason for such fears. The report reads: "The Pacific Railway seals the destiny of the British possessions west of the 91st Meridian. They will become so Americanized in interests and feelings that they will be in effect severed from the new Dominion, and the question of their annexation will be but a matter of time!"(2) The project became a practical problem with the entry of British Columbia into the Dominion in 1871 on the condition that a transcontinental

(1) The following rates adopted in 1880, were a modification of former years:

<u>Passenger</u>		Cabin	Deck
Lower Fort Garry	To Victoria, Ft. Saskatchewan & Edmonton	\$70.00	\$35.00

<u>Freight</u>		Rates per pound
Victoria.....	5 $\frac{3}{4}$ ¢	
Fort Saskatchewan.....	6 $\frac{1}{4}$ ¢	
Edmonton.....	6 $\frac{1}{4}$ ¢	

(2) Begg II p 185

railway be completed within ten years. This was followed by an Act of Parliament providing for the construction of the proposed railway by private enterprise, aided by public grants of land and money.

That same year an exploratory survey to determine the route of the railway was sent out under the direction of Sandford Fleming. This continued working until 1879. The main line, from the Red River westward, as surveyed by Fleming, ran north of the route finally chosen. It followed the Saskatchewan Valley, passing through Edmonton and the Yellowhead Pass. This route would have passed to the north of all the existing settlements, and was bitterly opposed by the settlers, especially those of Winnipeg. Fleming's motives in choosing this route were: (1) to open up to settlement what he judged to be the most fertile and promising parts of the prairie region: (2) To have the railway touch at convenient points, the lakes and waterways which promised facilities for traffic in connection with it. This route was finally abandoned in favor of one directly west across the prairie from Winnipeg, through the Kicking Horse Pass.

The years 1873 to 1881 were marked by unsuccessful attempts on the part of successive governments at

Ottawa to prosecute the construction of the trans-continental line. The only practical result of these efforts was the partial completion of one section of the line between Port Arthur and Winnipeg, and of other sections in British Columbia. In 1881 an agreement was made with the Canadian Pacific Railway Syndicate to carry out the project. Under this agreement the Company were to complete the road by 1891. It was given a cash subsidy of a hundred million dollars and a land grant of twenty-five million acres to be selected in Manitoba and the Territories. (1) In addition it was given a monopoly for twenty years of the construction of branch lines south of the main line.

In brief, the chief progress made in this decade toward providing transportation facilities for the West, was the adoption at last, of a definite railway policy and the agreement with the Canadian Pacific Railway Company to carry the work through to a rapid conclusion. The development of the West had, of course, been greatly hampered during this period by the lack of markets, and difficulty of access to immigrants. Prospective settlers who were obliged to go by way of the United States, were often induced by officials

(1) This grant was later reduced to 18,206,986 acres. The Company selected 2,500,000 acres in Manitoba and the remainder 15,706,986 ac. in Alta. & Sask.

of the American government or by American railways employees to settle in some of the Western States or Territories. Much immigration was deflected from Manitoba and the Territories in this way.

The construction of a telegraph line came somewhat ahead of the railway. A line was finished from Pembina to Winnipeg in 1871, and was carried from Winnipeg to Battleford and further west in 1876. But for several years, after being carried 700 miles out from Winnipeg, the line ended nowhere in particular, 18 miles from Edmonton. A telegram of ten words from Winnipeg to the end of the line cost \$2.50. For delivery at Edmonton, \$10.00 extra was charged. (1) This line was extended to Edmonton in 1879. No regular postal service was provided between Winnipeg and western points such as Edmonton, Macleod and Calgary until 1876. For several years after that the mails were carried by bull-carts in summer and dog-teams in winter.

As might be expected under such conditions as have been described, the actual amount of settlement in what is now the Province of Alberta during this ten year period, was very small. Black, in his "History of Saskatchewan" remarks of this stage

(1) Black -History of Saskatchewan p 202

in western development, that why so few immigrants presented themselves requires less explanation than why any one stayed in the country if he could get away. The whole of Canada was suffering from commercial depression during the period 1873-1879, which tended to retard western development. The actual extent of settlement may be seen from figures taken from the census of 1881, the first census taken of the North West Territories. The population by districts is given as:

	<u>White Population</u>	<u>Indian</u>	<u>Total Popu.</u>
Edmonton	800	2,326	3,216
Edmonton North	159	1,000	1,159
Bow River	400	2,875	3,275
Peace River	277	2,038	2,315
Athabasca	200	8,000	8,200

Edmonton during the decade 1871-1881 had become the centre of a growing settlement. In 1879 a steam saw and grist mill had been built there to serve the wants of the surrounding settlers. During that winter, the settlers of White Fish Lake and Lac La Biche brought their grists in sleighs 120 and 170 miles to this mill. Settlements had also grown up around the Mounted Police Forts at Calgary, McLeod,

Pincher Creek and Fort Saskatchewan. Morris in his "Indian Treaties" describes McLeod in 1877 as "quite a village, with excellent shops, and a blacksmith shop supplied with coal from the Belly River". In 1875, the first cattle, a few head were brought into the Pincher Creek district, and the first ranch located about three miles below Fort McLeod. In 1876 a few more cattle were brought in, and some of the Mounted Police who left the force that spring, located land with their scrip in that district. The 1881 census gives a small amount of information about the extent to which farming was carried on in Alberta, although no figures were given for the Edmonton and Bow River districts. The other districts were given as follows:

	Bu. of Potatoes	Acres of Wheat.	But of Wheat	Bus. of Barley	Bus. of Oats.	Acres of Hay	Tons of Hay
Edmon. N.	16,455	918	20,254	18,119	3,671	1,022	2,042
P. River	290	--	----	-----	-----	-----	-----
Athabasca	2,370	3	63	207	-----	190	378

No figures are given for the number of live stock or amount of occupied lands in the different districts but only for the North West Territories as a whole. The whole of the Territories contained 18,763 head of live stock (1) the total amount of occupied lands (1) Can. Year Book 1892

was 28,833 acres, with the total number of occupiers of land 1,014. (1)

(1) Can. Year Book 1886.

It has already been noted that the pioneer industry of Alberta, the fur trade, was confined chiefly to the northern part. The fur trade, however has very little relation to present conditions. Agricultural development, rather, has been from South to North. The first stage, developing in Southern Alberta, was devoted almost entirely to ranching. Until the coming of the railway, in 1884, ranching was almost the only industry of Alberta. There were three types of ranching: cattle, horse and sheep ranching. By far the most important of these was cattle ranching. The area devoted to the industry was southern Alberta, that is to say, the part of the Province south of the Red Deer River, and South western Saskatchewan, or Assiniboia, as it was then called. During the best ranching years, from the early eighties to the middle of the nineties, half a million square miles of this territory were held by a small number of ranchmen on lease from the Government. For the greater part of this time this was used as open range.

The advantages which southern Alberta, particularly the foothill district, offered for grazing purposes have already been noted. In the foothills

there was a large variety of extremely nutritious wild grasses, including buffalo grass, blue-joint, timothy, oat-grass and many others. Besides being very nutritious, these grasses possessed the peculiar property of curing on their stalks in the Fall, thus furnishing winter pasturage. The coulee and brushy river bottoms furnished natural shelter, and made it possible for cattle to graze outside during the winter. The prevalence of Chinook winds was another advantage. The Fall Chinooks helped to cure the prairie grasses; the Winter Chinooks melted the snow, at intervals exposing the grasses for pasturage. In the foothill regions there was an abundant supply of water from springs and mountain streams. In the open plains to the East, however, scarcity of water always proved a difficulty to stockmen. Under such conditions as these offered by Southern Alberta, the cost of raising live-stock was limited chiefly to the cost of labor in such connections as the semi-annual round-up, branding and the putting up of hay as an insurance against exceptionally cold weather.

The advantages offered for ranching by Southern Alberta were not unknown to Montana stockmen. As soon as the location of the Mounted Police gave assur-

ance of law and order, they began crossing the border with herds of cattle. The first herd of range cattle, numbering twenty-two head, was brought from Montana in 1878 and placed on the range near Macleod (1). A number of other small herds were brought in that year. However these early ranchers, starting on a small scale, suffered considerably from Indian depredations, which so discouraged them that in 1879 most of them returned to Montana (2)

In 1880 the Dominion Government opened the way for ranching on a larger scale by beginning a system of leasing large tracts of lands at very low prices. The main provisions of the regulations in respect to grazing lands, as first issued, were as follows:-

- (1) Leases were granted for areas not exceeding one hundred thousand acres, for a period of not more than twenty-one years:
- (2) Lessees were required to pay an annual rent of \$10.00 per 1,000 acres:
- (3) Within three years they were required to have placed on their land one head of live stock for every ten acres. (3)

(1) Kelly: The Range Men - P120

(2) Kelly: P48

(3) The total number of livestock to be kept on a given range was definitely limited.

(4) After placing the required number of cattle, the lessee might purchase land within his leasehold for a home farm and corral at the price of \$2.00 per acre (1). As a further encouragement, the securing of a lease enabled the lessee to bring cattle from the United States free of duty.

It will be noticed that the system of restricting the number of cattle to be maintained on the leases was adopted in Alberta instead of the Montana system of paying a rental per head in order to prevent overstocking. The Alberta plan proved the better one, as it did not lead to the early destruction of the prairie grasses on the range, such as was experienced in the Western states (2).

Regulations were later put into force setting apart certain areas suitable as watering places, for the use of all ranchmen. These areas were reserved from settlement.

Leases of large areas in the choicest districts of South-western Alberta were immediately taken up by a number of large companies, financed by capital from Eastern Canada and England. Within the next few years the ranches thus established

(1) Annual Report Department of Interior 1885 p.33

(2) " "

It is stated in the report these estimates are too small.

were stocked with herds from Montana. A few of the most famous of these pioneer ranches of Alberta might be mentioned. The first one to be stocked was the Cochrane Ranch, part of the herds for which were brought up from Montana, in 1881. It was first located in the foothills West of Calgary, but later moved South to the Waterton Lakes District, near the American border. Other well-known ranches were the Walrond, the Oxley and the Bar U, all stocked between 1882 and 1884. During these years a number of small ranchers were establishing themselves in the Calgary, Macleod and Pincher Creek Districts. By 1884 41 companies and individuals held a total of 2,782,690 acres on lease, chiefly in the Western foothill region as far North as Calgary. Six of the 41 lessees held leases for 100,000 acres each; ten more held over 50,000 acres each (1) In 1885, the earliest year for which figures are available, it was estimated that there were on the ranges in Southern Alberta and Assiniboia, 46,936 cattle, 9,694 sheep and 4,313 horses (2). They were all on the open range, none of the large leases, at any rate, being fenced in. During these first years a single semi-annual

(1) Annual Report Department of Interior 1885 p.33
 (2) " " " " " " " " " "

(It is stated in the report that these estimates are too small)

90

round-up was held for the whole of Southern Alberta. The last big round-up of this kind was held in 1885, near Macleod (1). The cattle had so increased in numbers by that time that it was decided by the ranchers to hold separate round-ups thereafter for the different districts. Southeastern Alberta was not taken up by ranchers until several years later than the foothill region. The first big ranch in the Medicine Hat district was started in 1886 by the Medicine Hat Ranching Company. Within a few years there were nearly as many cattle in this district as on the ranges to the west(2).

Although ranching was established as a prosperous industry by 1884, there were a number of serious difficulties with which the early settlers had to contend, and which caused them considerable loss. For a number of years the Indians were a source of worry and loss. They first became troublesome in 1878, when they began to suffer from the scarcity of the buffalo. Prairie fires in that year drove many of the remaining herds of buffalo south to the Missouri valley, where they were slaughtered in large numbers. The Dominion Government had not made sufficient provision for treaty payments. The consequence was that the Indians, who

(1) Kelly P.178

(2) Ibid. p.218

who were starving, helped themselves to the cattle on the range. Colonel Macleod, the Mounted Police Commissioner, thought it wiser not to deal severely with the Indians until better provision was made to support them, as he did not wish to cause an outbreak. Indian thefts continued to be a great source of loss during the first few years following the disappearance of the buffalo, that is, until the early eighties. After that the Mounted Police kept the Indians fairly well under control.(1) Some trouble was anticipated with the southern Indians when the Riel Rebellion occurred in the Saskatchewan valley in 1885. However, it caused merely a ripple of excitement, owing partly to the action of Crowfoot, the Blackfoot Chief, who refused to allow his Indians to join the tribes of the North. In fact, the rebellion proved beneficial rather than otherwise to the ranchers, as the presence of the troops from the East made a market for their cattle.

The early ranchers sustained many losses owing to careless methods and inexperience. This it was at first believed to be unnecessary to put up hay or make any provision for Winter feeding. However, exceptionally severe Winters, such as those of 1882-3 and 1886-7 caught them unprepared, and seriously

(1) Kelly p.218.

reduced their herds. According to Mounted Police records for 1887, the losses sustained that winter in the various districts averaged about fifteen per cent. The disasters of that year showed the danger of relying entirely on winter pasturage in the open, and it became customary thereafter to put up a certain amount of hay for winter.

The system of open ranges also proved unwise in some respects. It meant a deterioration in breeding, as good breeds and scrubs were all turned loose together. From the first the quality of the cattle as a whole deteriorated, partly for the reason noted, partly because many inferior animals were brought in later by the wholesale importation of stockers from Manitoba and the Eastern Provinces. The climax of deterioration was reached in 1902, when the importation of Mexican stockers began. This practice died out within a few years in about 1905.

The open range system also led to an overcrowding of the choicest ranges, and to the destruction, during the Summer, of the best and most sheltered winter ranges. The first departure from the open range system occurred in 1885, when an attempt was made to fence in the Cochrane range. Owing to the jealousy of rival ranchers, the attempt was unsuccessful.

-ful. After this initial failure, however, the practice of fencing in the ranges was gradually adopted.

Prairie fires were another source of loss. Many fires were caused by the carelessness of the Indians or of the ranchers themselves. It was finally discovered that sparks from railway locomotives caused many of the fires. In 1895 the Canadian Pacific Railway began plowing fireguards along its tracks. This resulted in a considerable diminution in the number of fires. (1)

For many years the timber wolves in the foothill region took heavy toll of the young stock. In spite of many petitions, neither the Dominion nor the Territorial Government would establish a bounty on wolf skins. In the early nineties an association of the stockmen of South-western Alberta finally offered a bounty. This led to an energetic campaign against the wolves, and a consequent reduction of losses from this cause. (2)

Another source of annoyance to the cattlemen, especially those near the International Boundary, was the tendency for American cattle to drift on to the Alberta range. The Montana ranges were dried up by

(1) Black; History of Saskatchewan. p433.
 (2) Kelly: The Rangemen. p226.

successive droughts during the early eighties, and it was suspected that the cattlemen there purposely drove their herds across the border. In addition to Mounted Police patrols, the Alberta ranchers kept line riders to drive American cattle back. The over-crowding of the Montana range also led to wholesale importation of rather poor quality of stock from that region. This led the Canadian Government, in 1886, to impose a duty of twenty per cent, on American cattle.

Another difficulty which began very early, and which has persisted to the present day, was the friction between cattlemen and sheepmen. Sheep were introduced at about the same time as cattle. As they crop the grass very close to the ground, sheep spoil a range for cattle for about two years. The cattle owners resented their introduction, and there were frequent clashes between the two kinds of ranchers. In 1882 the Government passed a regulation prohibiting the grazing of sheep on Dominion lands. This was changed in 1884 to a regulation which laid out restricted areas for sheep. No sheep were allowed to range from the boundary line on the South to the High River and the North fork of the Bow on the

North, and from the summit of the Rockies on the West to the Eastern boundary of Alberta on the East (1). This regulation remained in force until 1895. There was, however, great uncertainty among ranchmen as to what parts of the country were open to sheep grazing and it would appear from official records that neither the officials of the Territorial Government or the land agents of the Department of the Interior were very certain about the matter. Accordingly, in 1893, new regulations were passed prohibiting the grazing of sheep in any part of Alberta West of the Calgary and Edmonton Railway, the Bow, Belly and St. Mary's Rivers to the International Boundary. All of Alberta East of St. Mary's River and South of the South Saskatchewan River was set apart exclusively for the grazing of sheep. In all other parts of Alberta it was necessary to have the consent of the Minister of the Interior to obtain a grazing lease for sheep. Finally, in 1903, the regulations were changed once more, setting apart four separate areas in Southern Alberta and Saskatchewan where the grazing of sheep

(1) Annual Report, Department of Interior - 1885
Dom. Lands p.32

was permitted (1). The frequent changes in regulations ~~were~~ indicative of the constant friction which existed between cattlemen and sheep ranchers.

The slowness of the Territorial Government in passing brand ordinances was another cause of annoyance to stock owners. Although badly needed, such ordinances were not passed until 188, when penalties for using another man's brand were made legal for the first time (2). The need for stock inspectors was also ignored for many years by the Government; their appointment did not take place until 1897.

Alberta cattle did not suffer from disease to any great extent. This was largely due to careful supervision from the beginning, by the Dominion Department of Agriculture. In 1884 a policy of veterinary inspection and quarantine was adopted in regard to cattle imported from the Western States. The quarantine regulations were altered in 1887 and 1888, and again in 1892, becoming more restrictive with each change. The only disease which ever became serious was mange. This appeared in 1899, in the Lethbridge District, from which it spread over the entire Southern part of Alberta. Through efforts of the Alberta Stock Growers' Association,

(1) Blue:MS Development of Sheep Industry p.6
(2) Kelly: The Rangemen p.226.

of the Southern District, dipping stations were established throughout that district. By the treating of cattle by dipping, and by strict enforcement of quarantine regulations, the disease was almost eradicated by 1902. One other serious outbreak of mange occurred during the years 1905-7.

As the various associations formed by the stockmen exercised considerable influence in the development of the ranching industry, their development might be briefly noted. The first association was formed in the Macleod District in the early eighties. Gradually other separate associations developed in the different districts, such as Calgary, Lethbridge and Medicine Hat. By 1887 the district organizations had amalgamated into two large associations, one for the South and one for the North. The larger and more influential of these was the Alberta Stock Growers' Association, with headquarters at Macleod. In 1889, however, agitation began among the ranchers of the Calgary and High River Districts for an organization, with headquarters at Calgary, to be the leading one in the Province. As Calgary was the largest town in the whole ranching area, it was felt that the Northern District should assume the leadership. This was brought to pass in 1895 when the

Live Stock Growers' Association, embracing all the District Associations of Alberta, was organized with its headquarters at Calgary. (1)

The growth of cattle ranching can best be studied in connection with the development of markets. Even before the coming of the railroad, the ranchers did not suffer from a lack of markets. The I. G. Baker Company, with headquarters at Fort Benton, Montana, and branch stores at Calgary and Macleod, brought in all the animals the ranchers had to sell. This company, in turn, furnished the supplies required for the Indian Reservations, the Mounted Police stations and later, the railway construction camps.

Conditions were greatly changed by the coming of the Canadian Pacific to Calgary in 1883, and the beginning of transcontinental service in 1886. The coming of the railway marked the beginning of the end of ranching, as it opened up the way for settlement on a large scale, and this, of course, meant the fencing in of the range. Its immediate effect, however, was to greatly stimulate the ranching industry by opening up wider markets. Within a few years Alberta cattle were being shipped to the Eastern provinces, Great Britain, British Columbia and Chicago.

(1) Kelly pp. 164, 225.

The first shipments of Alberta cattle were to Manitoba and the Eastern provinces (1). There are no figures available as to the total numbers shipped during the first years of export. The British market was the next to be developed. The first experiment in sending cattle directly from Alberta to England was made in 1886. The experiment proved fairly successful, with the result that shipments to England increased steadily during the next few years. Most of the Alberta cattle sent to British markets were sold there to English or Scotch stockmen to be fattened.

The first shipment from the range to British Columbia was made in 1890. This market did not become an important one until after the building of the Crow's Nest Pass Railway in 1897.

Some idea of the growth of the cattle industry during these years may be gathered from the increase in the number of cattle on the range in Southern Alberta and Assiniboia, as shown in the following estimates:- (2)

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- (1) Annual Reports, Department of Interior, 1884 ff.
 (2) Annual Reports of Commissioner of Grazing and Timber Lands - Department of Interior (The reports state that the estimates are all too low)

	<u>Number of cattle</u>
1885.....	46,936
1886.....	74,999
1887.....	101,382
1888	108,361
1889.....	106,968
1890	117,659
1891	121,116
1892.....	139,283

x After 1892, no figures are available for the number of cattle on the range as distinguished from those owned by farmers.

The establishment of the British embargo on cattle in 1892, resulted in a period of depression for the cattle industry of Alberta in common with other parts of Canada. The terms of the embargo necessitated the slaughter of Canadian cattle within a few days of their arrival in England. This resulted in a great reduction in the price of Canadian cattle in the British market. For one thing, it was impossible to delay sale while waiting for a favorable market. In the second place, it meant that the cattle were slaughtered when in very poor condition, thin and bruised from their long journey. Alberta cattle suffered particularly in this regard, owing to poor transportation facilities on the Canadian Pacific to Montreal. It was estimated that cattle from the ranges suffered a loss in weight of nine or ten per cent during the trip to England (1).

Average prices for Canadian steers on the English market dropped in 1893 from \$50.00 to \$35.00 (1)

In spite of this, shipments from the Western ranges to England continued to grow. The number shipped in 1893 was 6, 500 followed by an increase the next year. In 1895, the North West Mounted Police records estimated the output of the ranges at 25,000 fat cattle, most of which were purchased by Gordon and Ironsides of Winnipeg. (2). In 1896 50,000 cattle were shipped from the ranges by the Canadian Pacific. Of these, 12,600 came from Alberta. Of the 50,000 cattle, 18,000 went to Great Britain and 2,000 to British Columbia. (3)

Another result of the cattle embargo for Alberta was an increase in the importation of Ontario and Manitoba stockers, that is, young cattle brought in to be fattened. The first importation of Ontario stockers was in 1899. For a few years these shipments were small. Then, with the decrease in stockers sent from Eastern Canada to England as the result of the embargo, there was a corresponding increase in the number sent to the Western ranges. In 1892, 7,000 stockers were imported from Manitoba.

(1) Blue : p.8

(2) Blue ; p.8

(3) Department of Interior, 1897, Dep. Min Rep. p XXX

and Ontario (1).; from 1893 until 1897, thousands were imported annually. In 1900 the numbers imported were -

11,434 from Ontario and

24,896 from Manitoba(2). The bulk of these were marketed in the form of live stock shipments to Great Britain, from stock yards at Winnipeg or Montreal. There were no live stock centres West of Winnipeg. The exports East of live stock from Southern Alberta from 1901 to 1904 were:-

1901.....	13,631
1902.....	21,557
1903.....	16,937
1904	35,631

The loss and waste consequent upon live stock shipments from the ranges to Great Britain led to agitation for the development of a larger dead meat trade in their place. Encouragement for such development was given by the erection of an abattoir and cold storage plant in Calgary in 1899 by P. Burns. In 1905 however, the dead meat export from Alberta was still insignificant in amount (3).

The completion of the Crow's Nest Pass Railway in 1898, from Lethbridge to Kootenay, ended the period of depression which had begun with the enactment of the British cattle embargo. By opening up the

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- (1) Blue : p.9
 (2) Report Dept. of Agri. N.W.T. 1900, p.53
 (3) " " " " 1904 p.45

the Kootenay mining district, it furnished Alberta ranchers with a market for butcher cattle which could not qualify for the Eastern export trade. The figures for live stock cattle shipments from Southern Alberta to British Columbia from 1901 to 1904 were:-(1)

1901.....	6,627
1902.....	7,505
1903.....	6,447
1904.. ..	8,093.

About 1897, the shipment of Alberta cattle to the United States began, consisting chiefly of stockers,(2) The ranchers of the Westernⁿ States had been receiving stockers from Manitoba and Ontario, but the supply there was not sufficient to meet the increased demand in 1897. Consequently the demand passed to Southern Alberta and Assiniboia. In 1899, 35,000 cattle were exported from Manitoba and the Territories to the United States. There are no records which show what proportion of these came from Alberta (3). In the meanwhile the decline of ranching was gradually going on owing to the advance of settlers and the consequent fencing in of the range. Rather, an evolution was going on in the pastoral industry from ranching to mixed farming. Difficulties between squatters and ranchers had begun even before the coming of the railway. Squatters settled near springs

(1) Report, Dept. of Agriculture, N.W.T. 1904p.47

(2) Blue: p.9

(3) Ibid

or other choice parts of the ranges. Some were legitimate settlers, others simply speculators who had to be paid to move away. With the coming of the railway, and consequent increase of settlement these difficulties increased. In the following year, 1884 2,000 immigrants came to Alberta (1) Both the Government and the Canadian Pacific Railway took active measures to promote colonization. The policy of the Government can be seen in the successive changes made during the next few years in the regulations in respect to leases for grazing lands. In 1885, all even-numbered sections of the grazing lands were thrown open to homestead, pre-emption or sale, such homestead entry or purchase rendering the grazing lease void. All leases granted thereafter were subject to cancellation upon two years' notice. The rent for leases was raised from \$10.00 to \$20.00 per 1,000 acres. In 1887 it was further enacted that leases could be granted only after public competition except in the case of actual settlers. This resulted in a great falling off in the number of applicants for leases. Finally, in 1893, new regulations were issued, providing that all leases which did not provide for the withdrawal of lands for homestead

or preemption purposes would be terminated in December 1896. Then, or during the interval, lessees were permitted to purchase not more than ten per cent of their leaseholds at \$1.25 per acre. It was open to them to accept leases drawn up under the new form for the unexpired portion of their term of twenty-one years (1). By 1895 all except nine of the old leases had been relinquished. After 1894 no new leases were granted of more than 6,000 acres.

After 1884 settlement in the South advanced steadily. The growth of farming operations is shown by the fact that in 1890 there were 20,000 acres under cultivation in the Calgary District and 6,313 acres in the neighborhood of Macleod (2). In 1893 American settlers first began coming into Alberta in large numbers. In 1898 a tide of American immigration set in, as a result of the colonization campaign of the Honourable Clifford Sifton, Minister of the Interior. The earlier settlers in the South engaged chiefly in wheat growing by dry farming methods. Later settlers by the development of irrigation projects, began mixed farming. As settlement advanced it encroached more and more on the open ranges. Rancher after rancher was forced to sell out his

(1) Part 1. Annual Reports Dept. of Int. 1882-1894
(2) Kelly; p. 252

herds owing to lack of grazing lands. By 1900 the day of the open range had definitely passed (1).

Ranching on a small scale still remained an important industry in the South.

During these years the number of livestock in Alberta was increasing, but they were passing from the range to the farm. According to the census figures for 1901 there were in that year in the North West Territories 591,739 cattle, 170,462 horses, and 154,152 sheep, showing an increase of 324 per cent for cattle 446 per cent for horses and 237 per cent for sheep over the last previously recorded figures, those for 1892. The evolution of the livestock industry from ranching to farming is shown by the figures giving the number of acres held under grazing leases in the North-west Territories, and the number of lessees for successive years after 1885 (2). After 1890 the area under range decreased, while the number of lessees was increased by the addition of numbers of small-scale farmers. The increase in their numbers led to an increase in the area under lease after 1900.

(1) Blue p.1

(2) Kelly p.5

. There were no records for Alberta alone until 1903.

	<u>Increased under Lease</u>	<u>Number of Leases</u>
1885	2,098,670	58
1886	3,793,792	101
1887	4,466,844	132
1888	3,352,378	108
1889	3,113,878	115
1890	2,488,347	126
1891	2,213,677	139
1892	1,081,209	142
1893	1,579,285	159
1894	1,298,871	156
1895	906,991	176
1896	269,967	268
1897	264,155	420
1898	361,697	535
1899	554,533	705
1900	610,051	804
1901	682,921	942
1902	1,272,847	908
1903	2,147,567	978
1904	2,292,540	889
1905	2,328,113	745

The figures for the exports of cattle from the ranges are another index of the decline of ranching. Exports increased steadily from 1898 to 1905; ranchers were selling out during these years. The figures for the years 1901 to 1905 were (1)

	<u>Number of cattle exported from S. Alberta.</u>
1901	24,148
1902	33,809
1903	31,468
1904	45,098
1905	45,266

After 1905 the exports from the ranges decreased rapidly. There are no records available for range cattle alone after this date.

(1) Annual Reports - Department of Agriculture, North West Territories.

There are no complete figures available for the proportions of fat cattle and stockers in the total shipments. The exports of fat cattle reached their highest point in the years 1898 and 1899. The number was estimated at 12,000 in 1898 and 20,000 in 1899. Fat cattle exports fell off rapidly after 1900 (1). The export of stockers, however, increased until 1905; in that year the last large shipment of stocker cattle from the ranges took place (2). The Dominion Land Agent at Red Deer wrote in his report for 1905 :- "Most of the cattlemen in the South are reducing their herds, or disposing of them entirely, and turning their attention to the raising of thoroughbred stock". Cattle ranching on a large scale, was definitely on the decline after 1905.

The development of horse ranching paralleled that of cattle ranching, to a large extent. There were, of course, horses on the ranges of Southern Alberta before there were cattle, but they were the native "Indian ponies". Prior to the coming of the Mounted Police in 1874, there were very few, if any, well-bred horses to be found in Alberta. As soon

as the Police came, the Dominion Government estab-

- (1) Annual Reports Interior. Estimates furnished by C.P.R. & Gordon and Ironsides, Cattle Dealers, Wpg.
- (2) Annual Reports, Agriculture, Alberta 1906, p.70

-lished a number of farms in connection with the forts to breed a supply of horses suitable for the force. One of the earliest of these farms was situated near Pincher Creek. Although a few good horses were raised on these farms, as well as by settlers near the forts, the supply was not sufficient to satisfy the needs of the Police for remounts.

In the early eighties horse breeding began as a regular industry. It was started with the hope of furnishing horses for the British Army. Many fine cavalry horses were bred during the first years, but the British Market for them failed, and they were used as plow horses. It was not until about 1886 that horse ranching was established as a profitable industry. It was carried on at that time, chiefly in the Calgary and Macleod Districts. The estimates of the numbers of horses in that region, as given in the Report of the Department of Interior, vary from 7,000 to 10,000. During the next two years the industry developed rapidly. A large number of horses were imported from Oregon, British Columbia and Ontario. By 1888 the number of horses in Southern Alberta and Assiniboia had increased to 23,868

(1) Estimate - Department of Interior - Annual Report - 1889: Dom. Lands Branch p.28

Many of them were of good quality, as is shown by the fact that the Mounted Police obtained all their remounts in the Territories that year.

During the next three years, however, a number of horses of poor quality were brought in from Montana and Oregon, and the quality of Alberta horses greatly deteriorated. In 1891 the Mounted Police were unable to obtain more than 100 suitable re-mounts in the Territories. The ranchers experienced great difficulty in finding any market for their horses. They had chiefly inferior breeds, for which prices in the East were very low, owing to a general trade depression, and to the increasing use of electric street cars. During the period of depression which followed, lasting until 1898, many horse ranchers sold out and went into cattle ranching instead.

In 1898 the Klondike Gold Rush began. This created a great demand for saddle horses and pack horses of all kinds. Cayuses and Indian Ponies were bought at the prices of good horses. The Commissioner of the Mounted Police stated in 1899 that the prices of horses had increased about fifty per cent owing to the gold rush.

At about the same time, the late nineties, an

influx of settlement began, creating an ever-increasing demand for farm horses. Ranchers began to turn their attention toward the breeding of horses suitable for farm work.

Then followed the Boer War, which created a demand for saddle horses, thus further stimulating the industry.

Practically coincident with the end of the Boer War, however, came the discovery that Winter wheat could be grown successfully in Southern Alberta. This meant the end of horse ranching on any large scale, just as it meant the end of cattle ranching. Horse breeding passed gradually to the farms. The census figures for 1901 give a total of 176,462 horses in Alberta a large proportion of which were farm animals.

The third branch of ranching, the sheep industry, also had its beginning in the early eighties. The first flocks were brought into the Southern range country from Montana and Wyoming, and were breeds characterized by small carcasses and heavy fleeces. As the sale of mutton later proved more proved more profitable than that of wool, ranchers introduced varieties designed to increase the

the weight of the carcass. In 1885, the first year for which there are figures recorded, there were about 10,000 sheep on range (1)

The restrictions imposed by the Government Regulations of 1882 and 1884, restricting the grazing of sheep, greatly discouraged the sheepmen. The industry practically vanished in the country South of Macleod and Lethbridge. After 1890 the industry improved and large numbers of sheep were brought in. Those in Alberta were chiefly in the Eastern part of the range country, the largest flock being on lands of the Alberta Railway and Coal Company, near Lee's Creek (2). The total number of sheep in the ranges had increased by 1890 to over 44,000, but the larger part of these were in Assiniboia (3).

In 1893 a serious outbreak of scab occurred. This led to the placing of an embargo on Canadian sheep by the British Government. The embargo, coupled with losses from the disease, gave a serious setback to the industry. This period of depression was ended by the opening up of markets for mutton in British Columbia, after the Crow's Nest Pass Railway was completed in 1898. Owing to competition of Montana mutton growers, the Alberta sheepmen

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1. Annual Report Dept. Int. 1886 Dom. Lands Branch p38
 2. " " " " 1891 p.23 No figures of numbers on range are available

did not derive much benefit from the new market for a year or two. However, beginning about 1899, sheep ranching in Alberta became very profitable, in spite of unfavorable grazing regulations. The numbers of sheep increased and the quality was improving. (1) The census figures for 1901 show 154,152 sheep in Alberta and Assiniboia. About 70,000 of these were in the Lethbridge District. However, sheep ranching like the other branches of ranching was beginning to suffer from the fencing in of the range. As far as large scale operations were concerned, it was at an end by 1905 (2)

(1) Blue: p.3 (No figures of numbers on range are available).

(2) Blue: p5.

VI

RAILWAY DEVELOPMENT, 1885-1905

The greatest constructive work in furtherance of the economic growth of Alberta between 1880 and its formation into a province in 1905 was the completion of a transcontinental railway and the partial development of a railway system. The greater part of the railway system of the province, however, was constructed after 1905.

Alberta was, of course, the last of the prairie provinces to be reached by the Canadian Pacific Railway. The main line was laid as far as Calgary in 1883, and in 1884 ~~was~~ in operation to Medicine Hat and Calgary. Previous to this, Fort Benton on the Missouri had been the distributing centre for Alberta, but this position was now assumed by Calgary. A stage line was immediately put into operation between Calgary and Edmonton, remaining in operation until 1891. It took five days to make this journey by stage.(1) In November 1885, the Prairie and British Columbia sections of the Canadian Pacific were joined, and in the following year transcontinental service between Montreal and Vancouver was inaugurated. The Canadian Pacific telegraph line from the Atlantic to the Pacific was completed in 1885.

(1) Blue MS. "Development of Transportation in the N.W."

The work of filling in branch lines within the province proceeded very slowly at first; in fact only one line was built before the nineties. This lack of branch lines to give access to the central and northern parts of the province was one cause of the lack of immigration into these districts during the years from 1880 until the later nineties. The construction of branch lines was carried on, with government aid in the form of land grants and subsidies, either by the Canadian Pacific Railway or by separate companies closely connected with the Canadian Pacific. That company later purchased or leased all the branch lines built during the period.

The only line constructed during the eighties, was the Galt line completed as a narrow-gauge road in 1885, by the North-Western Coal and Navigation Company(1) This line ran from Dunmore Junction on the main line of the Canadian Pacific near Medicine Hat, to Lethbridge (110 miles) and opened up for development the coal mines of the Lethbridge district. Previous to its completion some coal from the mines had been carried in scows down the Belly River to the Canadian Pacific Railway at Medicine Hat. In 1890 the line was extended from Lethbridge to Coutts, on

(1) Annual Report. Dept. Int. 1886. Rep. Dep. Min p.33

on the international boundary (65 miles) by the Alberta Railway and Coal Company. In 1891 this latter company took over the part from Dunmore Junction to Lethbridge, and in 1893 relaid it as a broad-gauge line. Subsequently, the Canadian Pacific Railway leased the whole line until 1897. In that year it purchased the Dunmore-Lethbridge portion, preparatory to extending it as the Crows Nest Pass Railway.

In 1891 the Calgary and Edmonton Railway was completed from Calgary to Strathcona. This opened up to settlement that territory between Calgary and Edmonton, and caused such an influx of immigration into the Red Deer district that it was found necessary to establish a sub-agency for the Dominion Lands Department at Red Deer in the following year. Connection with Edmonton was not made until 1902, when the Edmonton, Yukon and Pacific Company built a branch line between Strathcona and Edmonton. In 1892 the Calgary and Edmonton line was extended south from Calgary to the Old Man's River (104 miles). The whole Calgary and Edmonton line was then leased by the Canadian Pacific Railway.

The construction of a branch line from Lethbridge to Cardston was begun in 1899 by the Alberta Railway and Irrigation Company. This was completed to Spring

Coulee in 1900, and finally extended to Cardston in 1905.

The most important line constructed in the nineties was the Crow's Nest Pass Railway from Lethbridge via Macleod through the pass to Kootenay. After considerable agitation over the aid to be given by the government to this project, an agreement was reached in 1897 by which the government agreed to grant a subsidy of \$11,000 a mile, in return for which the company handed over to the government some valuable timber limits in British Columbia, agreed to a reduction in freight rates, and undertook to operate the railway under the control of the Railway Committee of the Cabinet(1) The line was completed in 1898. Its construction has a most important effect in bringing a revival of prosperity to the ranching and farming industries of southern Alberta which had been depressed for some years, owing chiefly to lack of markets. With the new line giving access to the recently developed mining regions of the Kootenay and the Klondike, these markets became available for the cattle, hay and dairy products of southern Alberta.

The laying of a second transcontinental railway through the province, that of the Canadian Northern, (1.) Encyclopaedia of Canada II p.217

was projected before 1905. Work was begun in 1903 on the line from Winnipeg to Edmonton. It was completed in September 1905 (1) With the construction of this railway settlement began to extend into the eastern part of central Alberta.

With the exception of this single line of the Canadian Northern Railway, the province in 1905 was still entirely dependent on the Canadian Pacific Railway for transportation facilities. The total mileage in operation by that company within that province including leased lines was 1060 (2)

The construction of the Canadian Pacific Railway and its branch lines stimulated the growth and prosperity of the province in many ways. Immigration increased rapidly as a result of the joint efforts of the railway company and the government (3). In fact, the organized advertising and immigration work carried on by the company in Eastern Canada, England, and the United States, proved more effective

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- (1) Brief History of Edmonton p.11
 - (2) Railways and Telephones, Alberta Annual Report
 - (3) Innis History of the C.P.R. p 129, 130.
Carnavon: Speeches on Canadian affairs pp.315-32

than the work of the government agencies (1). Armies of laborers were imported to do construction work, and some of them remained as settlers (2). The demand for labor which construction caused, was also a great assistance to homesteaders, hundreds of whom obtained work on the railways. The company assisted the development of agriculture by such means as reduced rates on the importation of pure-bred stock, and the free transportation of seed grain (3).

In one way, however, the building of the Canadian Pacific proved detrimental to progress. This was in connection with the land grants made to the company, and to the railway companies whose lines it acquired by leasing. The Canadian Pacific Railway was allotted the odd-numbered sections in a twenty-four mile belt along the main line and branches, and in the Saskatchewan, Battle and Red Deer River districts. In 1884 a grant of 300,000 acres was made to the Alberta Railway and Coal Company, and in 1890, 1,900,000 acres were allotted to the Calgary and Edmonton Railway Company. All the odd-numbered sections in the West were reserved from homestead entry to permit the

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- (1) Daffoe, Canada and its Provinces. -.302
 (2) No statistics are available but apparently only a small proportion remained (Sess. Papers 5(2) 1885; 54, 1900) Many of the laborers were Orientals.
 (3) Agri. TERRI. RPTS. 1899. p.10; 1902 pp44, 96.

railway companies to select their lands at leisure. As the companies were enabled to finance construction by issuing land grants bonds on the security of their lands, they were under no necessity of hurrying in the choosing of their lands. In most cases the selections were not complete until twenty or more years after the grants were made (1). The existence of the unoccupied odd-sections was a barrier to settlement. They separated the settlers, prevented school organization and the erection of municipalities, and increased the danger of prairie fires. The railway lands in the Canadian Pacific Railway belt were exempt from taxation, which resulted in their being held to a large extent for speculative purposes. The Dominion Land agent at Edmonton wrote in this connection, in his annual report to the Department of the Interior in 1897: "The existence of railway lands, exempt from taxation, and held always at prices in advance of their actual value, presents almost the only obstacle to rapid settlement of the Territories"

Before noting the effect of the coming of the railroad upon river transportation, the development of steam navigation on the Saskatchewan after 1880 might be traced (2). Up to that year the Hudson's Bay

(1) Innis, "History of the C.P.R. pp 254-5

(2) Material taken from MS by John Blue: Development of transportation in the Northwest.

Company had a monopoly of steam traffic on the river. In that year the Company opened the traffic to all traders and did a general transport business. Altogether the Hudson's Bay Company spent considerable sums of money to improve navigation on the Saskatchewan and was able to induce the Dominion Government to supplement its expenditures. Up to 1884, over \$121,000 had been spent. Its steamers were taken over and operated by the Winnipeg Transportation Company in 1881. This company operated six steamers on the Saskatchewan River, from Grand Rapids to Edmonton, on the north branch, and to Blackfoot Crossing on the south branch. The Galt Coal Company of Lethbridge were using three small but powerful river boats to carry coal down the Belly River to Medicine Hat.

The Hudson's Bay Company was also the pioneer of steamboat transportation on the northern rivers, the Athabasca, Peace, Slave and Mackenzie. The S.S. Grahame was built at Athabasca Landing in 1882. and the S. B. Wrigley at Fort Smith in 1887. Four more steamers were built within the next few years. They operated from Hudson's Hope on the Upper Peace River to Fond du Lac at the east end of Lake Athabasca, down the Mackenzie River to Fort MacPherson, and up the Liard River to Fort Nelson. In 1900 the Northern

Transportation Company entered the north and established a fleet of steamers, which they operated on the Athabasca River and on the Lesser Slave Lake.

The coming of the railway with its branches to Edmonton and Prince Albert was a death blow to steam navigation on the Saskatchewan River. In 1886, however, the steamboats were still competing with the railroad in carrying freight to Edmonton, and giving much cheaper rates. "It cost \$2.50 per 100 pounds to bring flour by railway and stage route, while it cost only \$1.80 to bring it by steamboat. On general merchandise, the rate by rail and stage was \$4.50 compared with \$2.90 by steamboat. As late as 1896 the S.S. Northwest arrived at Edmonton with a thousand sacks of flour."⁽¹⁾

The construction of the railway also caused a change in the route of transportation to the Hudson's Bay Company posts in the north. After 1883, the main highway to the north was from Edmonton overland to Athabasca Landing by ox-cart, wagon or other conveyance. There, connection was made with the Hudson's Bay Company steamers, and the Athabasca, Peace and Mackenzie River steam system. (2)

(1) Blue: p 12.

(2) Blue: p.15.

AGRICULTURE, 1880-1905

Ranching in Southern Alberta was the first stage in the agricultural development of the Province. But this was merely a passing phase of development, suited only to pioneer conditions and a sparsely settled country. Settlement and intensive cultivation occurred with the growth of mixed farming and grain growing.

A number of factors, however, tended to retard progress in agriculture during the fifteen years following the coming of the transcontinental railway. Southern Alberta was believed to be an arid region suitable only for grazing. Immigration to Central Alberta was discouraged for a period of five or ten years by the occurrence of the Riel Rebellion in 1885. This was an uprising of the Indians and halfbreeds of the Saskatchewan valley caused by the extension of the Government land survey. Its storm centre was in Saskatchewan. Incidentally the crushing of this rebellion permanently banished the fear of Indian disorders and definitely gave place and security to the Northwest.

The lack of transportation facilities throughout the whole of the Province except the strip along the

main line of the Canadian Pacific was another cause of stagnation. The construction of branch lines did not begin until the nineties.

Great dissatisfaction among settlers resulted from the Dominion Government's policy in connection with land regulations. All the odd numbered sections in the West were reserved from homestead and preemption, to permit the railways to select their grants. In 1882, the even numbered sections in the railway belt and south of it were also withdrawn from entry. It was claimed that this action of the Government retarded settlement and injured the reputation of the country. Travellers, seeing the land along the railway uncultivated would suppose it was unfit for cultivation. Large tracts of land in the most fertile districts were granted to colonization companies. Two such companies carried on operations in Alberta. In 1883 the Edmonton and Saskatchewan Land Company was allotted 216 square miles of land in the vicinity of Edmonton. Part of this land was settled at the time the grant was made (1) In 1888 the Canadian Agricultural and Colonization Company was organized. It received in Alberta, five tracts of ten thousand acres each. These were situated

(1) Dafoe: Canada and its Provinces XIX p.166

near Dunmore, Stair and Bantry, in the Medicine Hat district, and near Namaka and Langdon in the neighborhood of Calgary.

Settlement which then proceeded gradually followed the construction of the Canadian Pacific in 1883 mainly in the Calgary district, was composed largely of farmers who intended to engage in stock raising. For several years they were concerned almost entirely with ranching on a small scale, but by degrees small areas were put under cultivation for grain and fodder crops. The completion of the Galt railway in 1885 between Lethbridge and Medicine Hat promoted settlement for mixed farming purposes in the Belly river and Fort Macleod country.

In 1887 the nucleus of an important Mormon settlement in the Cardston district was made by the entry of sixty Mormons from Utah upon lands along Lee's Creek. They established mixed farms, paying particular attention to dairying. To their efforts was due the founding of the dairy industry in the Southern part of the Province. In 1888 the first creameries were established. One cheese factory and two creameries were established in the foothill district West of Calgary.

During this decade from 1880 to 1890, little

development occurred in Central Alberta or as it was then known, Northern Alberta, except a gradual increase of settlement and mixed farming in the neighborhood of Edmonton. The largest movement into that district occurred in 1887 when there was an influx of settlers to the Sturgeon river valley, especially along the south bank. Settlement developed very gradually along the Red Deer and Battle rivers, and along the stage line between Calgary and Edmonton. Apparently trying to make his report of conditions in that region as optimistic as possible, the travelling immigration agent of the Dominion Government wrote in 1887 that on the road between Edmonton and Calgary the greatest distance between farms was twenty miles (1.)

Thus, during this decade, the chief development in agriculture in Alberta was that of mixed farming, confined largely to the Calgary District along the Canadian Pacific and the vicinity of Edmonton. A small start had been made also in the dairy industry in the foothill region west of Calgary and in the Mormon settlement about Cardston.

Figures from the census of 1891 indicate the progress of agriculture in the various districts.

1. Report of Interior, 1888.

They show almost exclusive attention to ranching, with the above exceptions, in the Highland District, that is all of Alberta south of Calgary.

Population in 1891.

District	Population	Occupiers of Land.
Calgary and Red Deer	11,199	1,311
Macleod	7,203	397
Edmonton	6,875	752
Total ⁽¹⁾	25,277	2,460

Production of Field Crops

District	Acres	Wheat		Oats	
		Bushels	Bushels	Acres	Bushels
		Spring Wheat	Fall Wheat		
Calgary and Red Deer	2,016	29,734	2,019	14,608	375,571
Macleod	527	6,201	77	4,393	57,897
Edmonton	2,528	55,373	1,525	3,271	137,959
Total ⁽¹⁾	5,071	91,308	3,651	22,272	571,427

Barley

Potatoes Turnips & Roots

	Acres	Bushels	Acres	Bushels	Acres	Bushels
Calgary and Red Deer	1,329	29,707	686	104,580	226	51,589
Macleod	170	3,021	290	32,504	106	12,358
Edmonton	1,824	56,689	202	49,916	30	6,093
Total ⁽¹⁾	3,323	89,417	1,178	186,990	362	70,040

(1) Refers to provisional district of Alberta, that part of the present Prov. south of a line practically coincident with the 55th par. The population and production of Athabasca, the northern district, were negligible at this time.

	<u>Tons</u>
Calgary and Red Deer	30,836
Macleod	4,805
Edmonton	9,882
Total	45,523

(1)
Animals and Animal Products

	Horses	Dairy Cattle	Other horned Cattle	Sheep	Hogs	Poultry
Calgary and Red Deer	11,134	5,104	47,311	10,820	1,933	30,957
Macleod	6,413	2,940	80,757	3,616	744	10,306
Edmonton	3,367	2,925	6,415	1,621	2,488	17,239
Total	20,914	10,969	133,483	16,057	5,165	58,502

Dairy Products

	<u>Pounds of Homemade Butter</u>	<u>Pounds of Homemade Cheese</u>
Calgary and Red Deer	243,061	18,034
Macleod	64,146	620
Edmonton	98,799	3,660
	406,106	22,314

In 1892, following the completion of the Calgary and Edmonton Railway, the development of the mixed farming country between Calgary and Edmonton

(1) No separate figures are available for cattle on the range. This makes it impossible to tell the number on small farms.

began. This was then known as the Red Deer district or as "Northern Alberta". During the next ten years the largest part of the gradually increasing immigration into Alberta passed into this region, chiefly to that part west of the Calgary and Edmonton Railway. The great bulk of the settlers were Americans but several foreign settlements were started, notably one of Germans in the Leduc district, and one of Calicians along Beaver Creek near Edmonton.

The figures of the homestead entries at the different land agencies in Alberta from the opening of the first one at Calgary and Edmonton in 1884 until 1900 show the trend of settlement. There is a marked increase in the entries for "Northern Alberta" after 1891.

(1)
Homestead Entries

	Calgary	Lethbridge	Edmonton	Red Deer	Wetaskiwin
1884	25		4		
1885	137		42		
1886	303	24	70		
1887	No figures available				
1888	122	81	57		
1889	265	5	77		
1890	312	95	117		
1891	218	57	419	90	

(1) Annual Reps. Dom. Lands Agent, Dept. of Int.

	Calgary	Lethbridge	Edmonton	Red Deer	Wetaskiwin
1892	224	63	601	369	
1893	307	94	570	268	309
1894 (14 months)	564	223	1149	944	355
1895	103	118	204	214	314

No figures available for 1896 and 1897

1898(fiscal year)⁽²⁾

	123	195	623	195	Included in Edmonton Agency
1899	208	326	886	325	
1900	438	293	1,033	706	

As indicated before, mixed farming was adopted from the beginning in Central Alberta. Oats were gradually developed as the staple crop. Smaller crops of spring wheat were grown Barley was grown as a fodder crop, and considerable attention was given to dairying.

During the ten years following the completion of the Calgary and Edmonton Railway, a number of small towns sprang up along the line, Wetaskiwin, Ponoka, Lacombe, Red Deer and Olds, each the centre of a mixed farming community. By 1897 there were nine grain elevators in the north, four at Edmonton, two

(1) Annual Reports Dominion Lands Agent, Dept. of Int.

(2) June 30, 1897, June 30, 1898.

at Leduc and three at Wetaskiwin. (1)

The construction of the Crows Nest Pass Railway in 1898 meant a period of increased prosperity for the farmers of the region. It caused a reduction of nearly one half in the freight rates to the Kootenay mining district, which was the principal market for the dairy products of the South.

Although after 1901 or 1902 the field of greatest activity was again transferred to Southern Alberta, the central part shared in the extraordinary development of the whole Province which began at that time. With the projection of additional railways into the Province, settlement extended to the eastward of the Calgary and Edmonton.

By 1905 homesteads were taken up a hundred miles east of Edmonton towards the Vermilion Valley, along the proposed route of the Canadian Northern Railway. (2)

Comparative figures for the three main crops for 1898, the first year for which records were compiled, and for 1904, will show the advance of agriculture in Central Alberta. (3)

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|-----|---|----|
| (1) | Report Edmonton Land Agt. Interior 1898. Dom. Lands | 16 |
| (2) | " " " " 1906 " " | 18 |
| (3) | Annual Report Agriculture NWT 1904 p.15. 1904 is the last year for which estimates are given for the same district as those given in 1898. Central Alberta includes the Edmonton, Wetaskiwin, Red Deer, Lacombe, Ponoka, Innisfail Olds and Didsbury districts. | |

	Spring Wheat		Oats		Barley	
	Acres	Bushels	Acres	Bushels	Acres	Bushels.
1898	25,940	669,529	30,366	1,380,415	7,020	246,134
1904	32,442	558,933	140,783	4,315,866	55,113	1,446,122

There are no figures for live stock available except for Alberta as a whole.

The growth of the dairy industry which was beginning to assume importance deserves mention. For a number of years after its small beginnings in the late eighties the industry made scarcely any progress. It was confined almost entirely to the Cardston and western Calgary districts. By 1895, about 48,000 pounds of cheese were being shipped annually from the Cardston district to British Columbia.

Dairying gradually developed in Central Alberta with the spread of settlement to that region. The beginning of government assistance in 1896 gave the first stimulus to the industry. In that year \$15,000 was voted by Parliament for the establishment and maintenance of creameries in the Northwest Territories. This marked the beginning of the government's co-operative dairying system in Alberta which proved most successful. Four government creameries were established in Alberta in 1897 at Calgary, Edmonton,

Red Deer and Wetaskiwin. From this time on, the dairying industry in Alberta made steady progress. By 1905 there were government creameries in operation at 14 points in the Province. The following table shows the increase in production between 1898 and 1905.

	<u>Pounds of Butter Mfd.</u>	<u>Value of Product.</u>
1898	164, 188	32,808
1899	237,186	49,706
1900	295,024	59,435
1901	361,498	50,272
1902	278,438	58,261
1903	457,411	89,516
1904	416,191	85,766
1905	813,450	173,671

For many years the Calgary District was the only part of southern Alberta which was considered suitable for cultivation. Interest in the other more arid sections as farming lands was first manifested in the nineties in connection with a realization of the possibilities of irrigation in these regions. Although there had been attempts at irrigation on a small scale by individual farmers previous to 1893, no attention was given to extensive projects

until that year, when the cancellation of the large grazing leases went into effect.

The following year the government passed the Northwest Irrigation Act by which the right to the use of all water in the irrigation area became vested in the Crown. Almost immediately a government irrigation survey was begun, in order to provide for the intelligent control of the water. During and following the survey, a number of small irrigation works were undertaken as well as several large ones (1). Of the latter the Calgary Irrigation Company was the pioneer. Their enterprise involved the irrigation of an area of 45,000 acres west and southwest of Calgary. The construction of their canals was completed in 1902. Another large project was that of the Springbank Irrigation Canal, designed to irrigate 30,000 acres west of Calgary. Construction was begun in 1894 but only a small portion had been completed by 1905. The most important of the early irrigation schemes was that of the Alberta Railway and Irrigation Company which began work on the St. Mary's or Galt Canal in 1895. The Canal, which was designed to irrigate an area of 1,000,000 acres south and southeast of Lethbridge was completed in 1900. When the Company

(1) Report on Irrigation in NWT. Int. 1903 appendix.

began operations this land was unoccupied, except as a range for a few herds of cattle. In 1899 the Company entered into a colonization arrangement with Mormon Communities in the Western States, whereby the latter were to do construction works on the canal for which they were to receive as part payment land owned by the Company. About 2, 500 Mormon settlers came in during that year (1). Settlement of the area progressed steadily most of the settlers taking up mixed farming. In 1901 a beet sugar refinery was erected in the village of Raymond, and the cultivation of sugar beets began in that district.

By 1903 there were 469 miles of canal constructed in Southern Alberta, capable of irrigating an area of 614,684 acres. Owing to the occurrence of a number of wet seasons at the time of their completion little use was made of these irrigation systems, except the Galt canal, until some years later. The extensive irrigation project of the Canadian Pacific Railway Company was inaugurated in 1903, but very little work was done on it prior to 1905.

Of more importance to the development of Southern Alberta than these early irrigation projects was the "dry farming" invasion, which began about 1902. This

(1) Depart. of Agric. N.W.T. 1899, p. 33.

was a ^a part of the immense flow of immigration which began to enter Alberta at the beginning of the twentieth century. This influx of settlers was partly the result of the energetic campaign for immigration carried on in Europe and the United States by the Hon. Clifford Sifton, who became Minister of the Interior in 1896, and partly an overflow of the immigration to the Western States, where the limit of free farm lands had been reached.

The greater part of this tide of immigration into Southern Alberta consisted of American settlers. Many of these were from the Western States and were familiar with dry farming methods, the practice, that is, of keeping land fallow every second or third year for the purpose of storing moisture. Experiments in dry farming with a view to the raising of fall wheat were begun by the new settlers. Such experiments carried on during 1897 and 1898 first demonstrated the possibility of raising wheat in Southern Alberta. (1)

By 1903 the successful growth of fall wheat was fully established; the only problem which remained was to discover the best variety. The solution to that problem had been indicated by the introduction

(1) Report Red Deer Agent Interior 1898. p.27.
Southern Alberta includes the Calgary, Lethbridge, Macleod and Pincher Creek districts.

in 1902 of the first "Turkey Red" wheat. From experiments with this resulted the production of the famous "Alberta Red" variety. In 1904 the acreage under fall wheat in Southern Alberta was 7,090 with a yield of 121,201 bushels.(1)

The attention of farmers in the Southern part of the Province was turned toward wheat growing for the first time by these experiments with fall wheat. The result was a period of almost exclusive attention to wheat growing in that region which made Southern Alberta famous as a wheat district. This period was just beginning at the time of the formation of the Province in 1905.

Advance in settlement and agricultural development was fairly rapid for the Province as a whole between 1900 and 1905. This is indicated in summary form by the following tables of immigration, population and agricultural production.

Immigration records for Alberta begin with the year 1901. The following table indicates the rate of increase after that date.

(1) Annual Report Agriculture NWT 1904 p.110

Immigrants Entering Alberta.

1901	6,923
1902	12,071
1903	13,407
1904	10,717
1905	12,765

The increase in population is shown by a comparison of the census figures for 1891, 1901 and 1906.

Population of Alberta.

1891	25,277
1901	73,022
1906	185,412

The number of homestead entries furnish another index of the development. The increase of entries after 1900 is shown by the following table.(1)

Calgary	Edmonton and Wetaskiwin	Lethbridge	Red Deer
1900 436 (fiscal)	1,033	293	706
1901 802	1,631	524	846
1902 1495	2,144	693	1,149
1903 2383	3,244	1,543	1,489
1904 2609	3,597	1,945	1,450
1905 2113	3,094	1,786	2,629
1906 2082	4,601	2,751	3,859

(1) Annual Reports Dominion Land Agent, Dept. of Interior

The number of homestead entries should be supplemented by figures on land sales by the Dominion Government and the Railway Company but separate statistics for Alberta land sales are not available.

The following comparative figures for agricultural products for 1901 and for 1905 (1) show the progress made during these years:

Crop Production.

	<u>Wheat</u>	<u>Oats</u>	<u>Barley</u>
	Acres Bushels	Acres Bushels	Acres Bushels
1900	43,103 799,839	118,025 3,781,259	11,099 287,342
1905	147,835 3,035,843	311,545 11,728,314	80,900 2,231,186

Live Stock

	Horses	Dairy Cattle	Other Cattle	Sheep
1901	93,001	46,295	329,391	800,266
1906	226,534	101,245	849,387	154,260

	<u>swine</u>	<u>Poultry</u>
1901	46,163	225,798
1906	114,623	--

Incidentally it might be noted that little progress had been made in the poultry industry. In 1898 eggs for consumption in Alberta were being imported in large quantities from the Eastern Provinces (2). As

(1) Census of Prairie Provinces in 1905-6
 (2) Geo. Harcourt, Territorial Report Agri. 1898. pp 57-60

scarcely any poultry statistics are included in agricultural reports between 1898 and 1905 there was apparently little progress in the industry during these years. The hog industry, also insignificant until 1900, showed signs of growth after that date. In 1899 fresh pork, bacon and ham were being imported from the United States and Eastern Canada. By 1904 there were five pork packing establishments in Alberta, two at Edmonton, two at Calgary, and one at Innisfail. From these places fresh and cured pork was being exported to Winnipeg.(1)

(1) Territorial Report Agric. 1904. p.50

VIII

COAL MINING

Next to agriculture, the most important factor in the development of Alberta has been coal mining. The first record of the discovery of coal was by Edward Umfreville, a fur trader in the employ of the Hudson's Bay Company. This record appears in his "Present State of the Hudson's Bay" (1) published in 1789. (2). To Alexander Mackenzie, however, is commonly attributed the honor of the initial discovery (2). This is incorrect, as his statement of having found a seam of coal on the banks of the Mackenzie river in 1789 first appears in his "Voyages" published in 1795 (3). Peter Fidler, in a journey across the plains in 1793, found coal on Red Deer river. These two seams are recorded in Arrowsmith's map of 1801. Nearly all subsequent travellers and explorers mentioned the presence of coal in their reports, but for many years no one had any idea of the extent and importance of the formation.

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- (1) -149. This book is not available. The reference is taken from Burpee - "Search for the Western Sea" p.176
(2) J. B. Tyrrell: Dowlins: History of the Discovery of Western Coal Fields p.1
(3) Burpee. p.176

The first scientific statement concerning the coal resources was made by Dr. Hector, the geologist who accompanied the Hind-Palliser Expedition of 1857-1863. His reports were published by Palliser in his "Journals" in 1873. (1) Hector discovered coal at various places in the mountains and plains, including the Big Horn coal field on the North Saskatchewan; the Brazeau valley (near the present mines at Nordegg) and on the Snake river. He was the first to point out that great areas in Alberta were underlain by cretaceous coal formations which were part of such a formation extending from the Laurentian axis on the northeast to the Rocky mountains on the west.

Dr. Hector did not visit the great coal fields now being mined in the Crow's Nest Pass; these were first reported upon, though not mapped, by Lieutenant Blakeston about 1858. (2)

G. M. Dawson, of the Geological Survey, began his exploration of the boundary line across the plains in 1877. His conclusions, to the effect that the coal beds exposed on the boundary line were either cretaceous or tertiary, were published in 1875. Sandford Fleming, in his reports based on his exploratory expeditions 1873-79, for the location of a railway

(1) "Journals" pp.113, 1858; p.226, 1863

(2) Dowling: p.2

line, made further contributions to the knowledge of Alberta coal fields. Dawson resumed work in the southern portion of the mountains in 1881, and made discoveries which led him to predict that coal would be found in Crow's Nest Pass. J. B. Tyrrell, of the Geological Survey, carried on explorations in Central Alberta, as far north as Edmonton, in 1885 and 1886. After the publication of reports and maps by Dawson and Tyrrell, the presence of coal in the province first became well enough known to influence settlers to seek lands where they would be assured of a fuel supply. Since that time, minute examinations of the Alberta coal resources have been carried out for the Geological Survey by McCannell and Dowling. The latter particularly has carried on extensive investigations and published valuable reports (1).

Until 1905, the coal mining industry of Alberta was in the pioneer stage of exploitation. Even in its early period, however, it greatly assisted the settlement and growth of the province by supplying local fuel needs and helping railway construction. Had the plains and foothills not contained coal suitable for locomotive purposes, much of the railway construction work in the mountains would of necessity

(1) Geol. Surv. Can., No. 11723.

have been postponed. The beginning of the industry as one of commercial importance dates from the laying of the Canadian Pacific Railway.

However, the first coal seam to be opened in the province was at Lethbridge, in 1881. In 1883 some of this coal was transported in boats down the Belly River to Medicine Hat, and was found to be suitable for the use of the Canadian Pacific Railway. The Company purchased 9,000 tons of this coal in 1884. That same year seams of lignite coal of poorer quality were opened at Medicine Hat and 6,000 tons of it were exported to Winnipeg. (1) The construction of the narrow gauge Galt Railway from Medicine Hat to Dunmore, in 1885, made the Lethbridge coal available in larger quantities for the use of the railway and also enabled it to be placed on the Winnipeg market. Competition in the market due to the entrance of this coal, led to a general reduction in coal prices in Winnipeg and throughout the Northwest. Prices fell to Eastern levels (2).

When the Canadian Pacific Railway reached the mountains, coal was being brought all the way from Ohio (3)

- (1) Report, Dept. of the Interior 1885: Rep. Dep Min xiv
- (2) Mines Report, Dept. of Interior 1886 " " " xxvii
- (3) Allan, Mineral Resources of Alberta, 2nd report p36

The construction work in the mountains led to the discovery of anthracite coal in the Bow Pass near Banff, in 1883. Shortly after, high grade bituminous coal was found at Canmore. These coals were immediately put to use in connection with the heavy construction work through the mountains. Systematic operation of these mines did not begin until 1891. By 1893 the anthracite product began to replace the imported hard coal on the Winnipeg market (1). The anthracite mines at Anthracite were abandoned in 1903, and others opened at Bankhead, on the same seam.

The next mines to be opened on a commercial scale were those in the Edmonton district. The coal here, which was of a lignite or subbituminous variety, had been mined for local fuel purposes from the beginning of settlement. Mining operations gradually became more extensive with the growth of settlement. Export to Calgary began in 1893, following the completion of the Calgary and Edmonton Railway.

The Inee Hill mines of lignite coal, near Calgary, were brought into operation on a small scale in 1893.

Until 1900, the Lethbridge mines had the largest output of any in Alberta, while Canmore and Anthracite had the next largest. In 1897, the coal production by

(1)

districts was estimated as follows :

Lethbridge.....	180,000 tons
Canmore.....	75,000 "
Anthracite.....	20,000 "
Edmonton and Okotoks.	4,000 "
Knee Hill.....	2,000 "

There was at this time a very small local demand for coal. Most of the Lethbridge coal was shipped to Montana, the Canmore output went chiefly to the railroads, coal from Anthracite was marketed in Winnipeg. After 1900, the output at Lethbridge decreased for a few years owing to a falling off in the market for it in Montana, the Canmore mines taking first place in volume of output. By 1903 however, the increase in local demand, due to the growth of settlement, was sufficient to induce a steady increase in the Lethbridge output.

The construction of the Crow's Nest Pass Railway in 1897 led to the discovery of what proved to be the largest producing field in the province, that of the Crow's Nest Pass. The actual development of the Alberta sections of this field did not begin until 1901, when mines were opened at Frank. (2) In 1903 additional mines were put into operation at Blairmore,

(1) Report Dept. of Interior 1898 p.19

(2) " " Public Works NWT 1901. p 25ff.

Cowley, Bellevue and Coleman. The output from the Pass was just becoming large enough to be of importance in 1905.

There are no figures available for the annual coal production by districts previous to 1905. Such records as are given however, indicate a steady increase in output for all the districts after 1901. This was due not only to an increase in the local demand caused by the growth of settlement, but also by the beginning of manufacturing on a small scale. (1).

A summary of the development of the coal industry of the province from the beginning of commercial production at Lethbridge in 1885, until the formation of the province in 1905, may be obtained by a glance at the figures showing the annual production for these years.

Annual Production of Coal in Alberta (2).

	<u>Short tons</u>
1886	34,220
1887	74,152
1888	115,124
1889	97,364
1890	128,753
1891	174,131

(1) Territorial Rpts. Dept. Pub. Wks. 1901-1905.
 (2) Mines Branch pamphlet "The Prod. of coal & coke in Canada" 1920 p.26

(Continued)

	Short tons.
1892	178,970
1893	230,070
1894	184,940
1895	169,885
1896	209,162
1897	242,163
1898	315,088
1899	309,600
1900	311,450
1901	340,275
1902	402,819
1903	495,893
1904	661,732
1905	931,917

To recapitulate: The first large increase in output was noticeable in 1891. due to the opening up of the Anthracite and Canmore mines: contributions from the Edmonton and Knee Hill mines helped to produce the increase in 1893; in 1902, the output of the Crow's Nest Pass mines caused an appreciable increase. In 1905, the output of the Alberta coal mines was just becoming large enough to be of economic importance.

IX

SUMMARY

The granting of provincial autonomy found Alberta in readiness to enter upon a period of rapid economic growth and prosperity. A review of development prior to 1905 will show how, slowly but soundly, the foundations were being laid for a more rapid advance.

With the purchase of the Northwest by the Dominion in 1869, Alberta had ceased to be merely a fur preserve for the Hudson's Bay Company. Following the purchase, and the preparation for the settlement of the country, the fur trade passed to the extreme northern part of the Province, and beyond to the north and northwest, into the Mackenzie valley. Although the trade declined in relative importance, it still remained considerable in amount. Some idea of its value, which of course varied from year to year, is obtained from the census figures for successive periods:-

Value of Fur Production of the Northwest Territories:

1881.....	428,177
1891.....	208,425
1901.....	146,517

Edmonton has remained the distributing centre for the fur country to the north. The bulk of the fur trade has continued to be in the hands of the Hudson's Bay Company, but numerous smaller companies, as well as private individuals have gained a share in it.

With the passing of the fur trade to the north, agricultural development began with ranching in the south. As we have seen, this industry reached the height of its importance in the nineties, and began to decline about 1900, with the advent of settlers and the restriction of the ranges. By 1905 it was chiefly confined to small scale proprietary ranches.

Mixed farming, involving stock-raising, dairying and crop production had its small beginnings in the western foot hill country, in connection with ranching. With the extension of the railway it spread to Central Alberta. The tendency for settlers to go beyond the line of the railways led a few even into the Peace River valley.

In the semi-arid region of southwestern Alberta, irrigation projects were planned and, over small areas, put into operation after 1898. The irrigated districts were devoted to forage crops, pasture

and sugar beets. These meant stock-raising and dairy farming. Only a small part of the north, however, was included in the irrigation schemes. A period of great prosperity for the whole of southern Alberta began about 1903, following the discovery that wheat could be successfully grown there by dry farming methods.

The only industry, besides agriculture, which had attained economic importance, was that of coal-mining. In 1905, the export of Alberta coal was first becoming large enough to have an appreciable effect on the American and Canadian markets.

Immigration, which had begun to trickle slowly in with the coming of the Canadian Pacific Railway, increased steadily during the latter nineties, until with the beginning of the twentieth century it was pouring in. In 1906, the population of Southern Alberta was 80,953⁽¹⁾, Central Alberta 99,349⁽²⁾, and Northern Alberta, 4,948⁽³⁾, a total of 185,412 for the province.

Following the growth of population and the development of agriculture and coal-mining, came the beginning of urban life. The rapidity of the rise from towns into cities, and from villages into towns

(1)-South of the Red Deer River.

(2)-From Red Deer River to Lac La Biche.

(3)-Peace River District.

and cities, was a remarkable feature of the years from 1900 to 1905. The growth of villages and towns occurred largely in connection with the development of agriculture; they were points at which elevators or creameries were located, and centres of supply for surrounding farm settlements. In 1906 there were five cities, eighteen towns and thirty-three villages in Alberta, with a total urban population of 58,033, as compared with one city, Calgary, six towns and twenty-one villages in 1901. This shows an increase of 205 percent in urban population during those four years. It is, however, almost impossible to draw any hard and fast lines between rural and urban population in a country where agriculture, in its widest sense, is almost the only industry.

The five cities of the province in 1906 were Calgary, Edmonton, Lethbridge, Medicine Hat and Wetaskiwin.

Calgary was founded as a Mounted Police Post in 1875. For a number of years it was simply a stopping-place on the Fort Benton trail to Edmonton, one of the supply centres for the ranching country. It grew rapidly after the coming of the Canadian Pacific

Railway, which made it the distributing centre for Alberta. An abattoir and cold storage plant were established in 1899 by P. Burns, and the next year the Canadian Pacific Railway round houses and workshops were completed. The population of the city in 1906 was 11,967.

Edmonton's early importance as a fur-trading post has already been noted, as well as its growth after 1870, as the centre of a mixed farming district. In 1882 a boom occurred as the result of rumours that the transcontinental railway was to pass through it. A large number of Edmonton lots were sold in Winnipeg at that time. The boom collapsed of course, when the Calgary route was chosen for the railway. The discovery of gold in the Klondyke in 1898 led to a revival of activity in Edmonton, which became the out-fitting centre for hundreds of miners. It was incorporated as a city in 1904 and in 1905 was chosen as provisional capital of the province. This choice was confirmed in 1906 at the first session of the Alberta Legislature. The completion of the Canadian Northern Railway from Winnipeg in 1905, assured the economic welfare of the city by putting it on a transcontinental line. In 1906 it had a population of 11, 167, very nearly

(1)

the same as Calgary.

Of the three smaller cities, Medicine Hat was the largest, with a population of 3,020. Starting as a supply center for the eastern ranching district it owed its growth to the fact that it was on the main line of the Canadian Pacific Railway, and to its supplies of coal and natural gas. Lethbridge, coming next with a population of 2,313, was almost entirely a mining town. Wetaskiwin, in the heart of the mixed farming and grain growing district of central Alberta, grew up gradually as an elevator point after the building of its first elevator in 1897. Its population in 1906, when it was incorporated as a city was 1,652.

Of the towns, all but four were on lines of the Canadian Pacific Railway; Macleod, Claresholm and Okotoks on the Calgary-Macleod line; Cardston and Raymond on a southern branch; Olds, Innisfail, Red Deer, Lacombe, Ponoka and Strathcona on the Calgary and Edmonton line. Of the four remaining towns, St. Albert, Fort Saskatchewan, Vegreville and Vermilion, the last three were on the line of the recently constructed Canadian Northern. All but two of the villages were on the Canadian Pacific Railway.

1. Census 1901.

Manufacturing, chiefly in connection with agricultural products, was just beginning. In 1901 there were fifty-six manufacturing establishments in Alberta, with an invested capital of \$1,141,049 and an annual output with an estimated value of \$1,313,320. Among these establishments were fourteen making lumber products, eleven butter and cheese factories, seven flour and grist mills, five brick, tile and pottery plants, and a brewery and packing plant. In 1905 the number had increased to a hundred and twenty establishments, with a capital of \$5,545,821 and an output valued at \$5,116,782.⁽¹⁾ These figures show the very small part that manufacturing played in the economic life of the province.

Along those lines of agricultural and industrial development for which its resources were fitted, the province was on the eve of a period of rapid growth. As Sir Wilfred Laurier put it in introducing his Bill into the House of Commons for the establishment of the government of Alberta, "As the nineteenth century has been the century of the United States, so the twentieth would be the century of Canada. Whereas in the phenomenal rapidity of development of the Western States, every other consideration has been

(1). Canada Year Book, 1913.

sacrificed to that of rapid growth, we have been satisfied with slower progress. Our institutions in our Northwest, have been developed by gradual stages, so as to ensure at all times, among these new communities, law and order and the restraints and safeguards of the highest civilization'.

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